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ABSTRACT

Designed to aid teachers of a high school economics course, this curriculum guide is presented in self-contained units of study. Thirteen units, each with specific lessons, cover economic problems, the market system, market structure, market imperfections, government regulation, the national economy, aggregate supply and demand, the business cycle, stabilization policy, economic growth, international trade, and comparative economic systems. Each lesson outlines concepts, objectives, class time required, materials, procedures, and includes worksheets and resource materials. A rationale for the course, a content outline, course objectives, a sample syllabus, an annotated bibliography of high school economics texts, pre- and posttest copies of the nationally normed Test of Economic Literacy, and a list of free loan materials available in Hawaii are also included in the guide. (LP)

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ECONOMICS

(A High School One Semester Course)

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Office of Instructional Services ◻ General Education Branch ◻ Department of Education ◻ State of Hawaii ◻ RS 82-2332 ◻ February 1982

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FOREWORD

This publication is designed to aid teachers who will be teaching a one-semester course in Economics at the high school level. Economics is one of the minimum electives in the Secondary Social Studies Program, included in the specialized courses listing for grades eleven and twelve. The curriculum for this course is designed to develop a comprehensive understanding of important economic concepts and provide students with experiences to develop, extend and apply the learnings, and to make reasoned judgments about major economic questions facing the individual and society.

This curriculum resource guide is presented in thirteen units of study. Each unit contains a series of lessons that follows the following format: (1) introduction; (2) time required; (3) concepts; (4) instructional objectives; (5) materials required; (6) suggested procedures; and (7) worksheets or other resource materials. In addition, there is a rationale for the course, a recommended content outline, course objectives, a sample course syllabus, student worksheets and readings, an annotated bibliography of high school economics textbooks, pre- and post-test copies of the nationally-normed Test of Economic Literacy, and a list of free loan materials, mainly films that are available from the Department of Education film library and the Center for Economic Education at the University of Hawaii at Manoa.

The looseleaf folder format will provide for additions of lessons, which will be sent to all users of this curriculum resource guide.

This guide was developed through the cooperative efforts of the Hawaii State Department of Education and the Hawaii Joint Council on Economic Education. Implementation will be guided and assisted by specialists from both organizations.

Dr. Donnis H. Thompson
Superintendent

TABLE OF CONTENTS

- Foreword i
- Table of Contents. ii
- Introduction 1
- Content Outline and Course Objectives. 4
- Bibliography of Economic Films 12
- Commonly Used Textbooks and Curriculum Guides. 25
- Pages in the following units are numbered so that each unit is separate from any other. Additional pages will be added to these units and the numbering will continue consecutively for each unit.

I. The Economic Problem

II. The Market System

III. Market Structure

IV. Market Imperfections

V. Government Regulation

VI. The National Economy

VII. Aggregate Supply

VIII. Aggregate Demand

IX. The Business Cycle

X. Stabilization Policy

XI. Economic Growth

XII. International Trade

XIII. Economic Systems

Note: There are no instructional activities included in a few of the units. These will be forthcoming as exemplary lessons or activities are tried out, adapted and validated for classroom use. In addition, lessons and activities for the other units will also be periodically sent to the users of this guide. In time, there should be more than sufficient numbers of lessons or activities to develop each unit; teachers can then selectively use those best suited for their students.

INTRODUCTION

This curriculum resource guide, Economics, is designed for a one-semester high school specialized elective course. It contains a rationale for the course, a recommended content outline, course objectives, a course syllabus, sample lesson plans, student worksheets and readings, an annotated bibliography of high school economics textbooks, pre- and post-test copies of the nationally-normed Test of Economic Literacy and a list of free loan materials, mainly films from the Department of Education film library and the Center for Economic Education at the University of Hawaii at Manoa.

Rationale for the Course*

Social studies educators are in general agreement that the primary objective of the social studies is the development of students who are responsible citizens and effective decision-makers.

High school graduates, in fact, all adults in society, will be continually exposed throughout their lifetimes to a wide variety of economic issues and questions. This will occur through their reading of newspapers and news magazines, their exposure to radio and television, their involvement in political campaigns and civic issues, and their participation in economic life as employees, employers, consumers, union members, and the like. The conclusions they reach on issues or their answers to economic questions will be reflected in how they vote; in the actions they take as members of unions, civic organizations and businesses; in their responses to appeals by the President and other public officials; and in economic decisions they make as individual consumers, workers, producers, savers and investors. This means that the quality of individual decision-making is crucial to the effective operation of our social system and to the well-being of the individual.

Thus it is essential to help young people, by the time they graduate from high school, to develop the knowledge, skills and attitudes to understand and make reasoned judgments about major economic questions facing society and themselves as members of that society. They will then be better prepared to be responsible citizens and effective decision-makers.

Content Overview

The essence of economic understanding lies in being able to make sense out of the unfolding array of economic issues coming to our attention. This requires that the various elements of economic understanding be combined and blended so as to provide a working knowledge of economics. The key elements of economic understanding are as follows:

* Adapted from A Framework for Teaching Economics: Basic Concepts, New York; Joint Council on Economic Education, 1977.

·*Practicing a reasoned approach.* Students must recognize that economic issues can be analyzed effectively only by replacing emotional judgments with an objective, rational, and systematic approach--a reasoned approach.

·*Mastering the basic concepts.* Students must have at their command a set of basic concepts to give them the capacity to think about economic issues in a reasoned way.

·*Possessing an overview of the economy.* Students need a simple overview of how the economic system works so as to provide a structure for examining specific issues.

·*Identifying the issues.* Students must possess the knowledge and skills to recognize the various types of economic issues they are likely to encounter as consumers, workers, citizens, and employers.

·*Applying these elements to particular issues.* Students must be given practice in using the reasoned approach, working with the basic concepts, and identifying the issues, first on simple and then on more complex real-world issues. The ultimate test is their ability to apply these elements to a range of newly emerging issues.

·*Reaching decisions on economic issues.* Students must learn how to take the final step of forming their own judgments of economic issues. This requires making decisions based on their analysis of the issues, tempered by their own values. This last step includes knowing when it may be impossible to reach a judgment.

The major concepts that are included in the course are:

1. Economic Wants
2. Productive Resources
3. Scarcity and Choice
4. Opportunity Costs and Trade-Offs
5. Economic Incentives
6. Production
7. Consumption
8. Markets, Demand and Supply
9. Market Structure, Competition and Monopoly
10. Market Failures, Externalities, etc.
11. Government Regulation
12. Gross National Product
13. Unemployment
14. Price Level Changes
15. Aggregate Supply

16. Aggregate Demand
17. Business Cycles
18. Fiscal Policy: Taxes, Expenditures, and Transfers
19. Money and Monetary Policy
20. Income Policies
21. Economic Growth
22. International Trade
23. Economic Systems

Concepts are developed through focus on general concerns, such as the role of prices in a market economy, the impact of government, and the unemployment-inflation dilemma. There is also focus on teaching students something about personal economic decision-making--how to earn an income, invest their savings, budget personal expenditures, and the like. The emphasis throughout the lessons is on preparing young people to grapple with both social and personal issues and questions. To do so, they must, in each case, become familiar with the concepts and approach of economics, and they must be able to apply them in a reasoned way so as to come to informed decisions on specific issues.

Students are also assisted in becoming intelligent readers of the newspapers, careful watchers and listeners of television and radio, and critical observers of political candidates and issues. This requires a variety of knowledge and skills--developing an ability to identify the economic aspects of particular issues, taking a rational, unemotional approach to these issues, having available a framework for understanding the economic system, knowing the basic economic concepts, and being able to utilize these several elements of economic understanding in addressing a variety of specific questions. By the time the course is completed, young people should be able to address long-standing economic issues which need resolution as well as new economic issues which require them to move intelligently on less familiar ground.

CONTENT OUTLINE AND COURSE OBJECTIVES

I. The Economic Problem

A. Scarcity

(1) Explain the economic concept of scarcity in terms of wants and resources and relate how it underlies all economic decisions.

(2) Classify productive resources according to the categories of land, labor and capital.

B. Opportunity Costs

(1) Determine the opportunity cost of a given action.

(2) Explain why the cost of an act is the best alternative given up.

II. The Market System

A. Production and Allocation

(1) Explain how a market economy answers the questions of what to produce, how to produce, and for whom to produce.

(2) Explain the role of the decision maker - the entrepreneur - in production.

(3) Explain how prices, costs, and profits provide information for making production and allocation decisions.

B. Demand

(1) State the Law of Demand.

(2) List the determinants of demand.

(3) Distinguish between demand and quantity demanded.

(4) List and explain the major factors influencing the degree of price elasticity of demand.

(5) Explain the relationship between changes in price and total revenue in terms of elasticity of demand.

C. Supply

(1) State the Law of Supply.

(2) List the determinants of supply.

(3) Distinguish between supply and quantity supplied.

(4) List and explain the major factors influencing the degree of price elasticity of supply.

D. Market Price

(1) Define and illustrate equilibrium price.

(2) Explain what shortages and surpluses are.

(3) Explain how price serves as a rationing device.

(4) Identify the allocation and income distribution functions of price.

(5) Explain how price ceilings create shortages and how price supports create surpluses.

(6) Predict what will happen to equilibrium price and quantity given a change in a determinant of demand or supply.

III. Market Structure

(1) Specify the source and meaning of competition in a market economy.

(2) Identify the features of the major types of business organizations.

(3) Explain how competing businesses seek to maximize their profits.

(4) Identify the four general types of market structures - perfect competition, monopolistic competition, oligopoly and monopoly.

(5) Categorize specific industries according to the four general market structures.

(6) Explain the effects of monopoly on price and output.

(7) Explain how monopoly power can be identified.

IV. Market Imperfections

(1) Distinguish between private costs and benefits, and social costs and benefits.

(2) Demonstrate, using supply and demand curves, the effect of externalities on price and output.

(3) Provide a number of remedies for dealing with third-party effect.

V. Government Regulation

(1) List reasons commonly given for government regulation.

(2) Describe how government regulation affects the workings of the market for various goods and services.

(3) Analyze the costs and benefits of government activities in the economy.

VI. The National Economy

A. Gross National Product

(1) Define the term "Gross National Product."

(2) Explain how GNP can be measured in terms of investment expenditure, government expenditure, consumer expenditure and net foreign expenditure.

(3) List and explain the shortcomings of GNP as a measure of the nation's output of goods and services.

B. Price Indices

(1) Define the term "index number" and explain the usefulness of the consumer price index, wholesale price index, and implicit price index.

(2) Describe how the consumer price index is computed.

(3) List and explain the shortcomings of the consumer price index as a measure of inflation/deflation.

C. Unemployment

(1) Define the term "full employment" as it is most often used by economists.

(2) Explain how labor force unemployment is measured.

(3) Determine whether a given person is employed, unemployed or not in the labor force.

(4) Differentiate among frictional, cyclical, structural, and seasonal unemployment.

VII. Aggregate Supply

A. Determinants of Aggregate Supply

(1) Define the term "aggregate supply."

(2) List and explain the (seven) determinants of aggregate supply.

B. Aggregate Supply Curve

(1) Draw an aggregate supply curve with appropriate slope.

(2) Explain the slope and shape of the aggregate supply curve.

(3) Label the x and y axes correctly.

C. Changes in Aggregate Supply

(1) Explain the causes of shifts in aggregate supply.

(2) Predict the effect of a given change in aggregate supply on the levels of employment, output and prices.

VIII. Aggregate Demand

A. Determinants of Aggregate Demand

(1) Define the term "aggregate demand."

(2) List and explain the determinants of aggregate demand.

B. Aggregate Demand Curve

(1) Draw an aggregate demand curve with appropriate slope.

(2) Explain the slope and shape of the aggregate demand curve.

(3) Label the x and y axes correctly.

C. Changes in Aggregate Demand

(1) Explain the causes of shifts in aggregate demand.

(2) Predict the effect of a given change in aggregate demand on the levels of employment, output, and prices.

IX. The Business Cycle

A. Inflation

(1) Define the term "inflation."

(2) Distinguish between examples and non-examples of inflation.

(3) Identify and explain the various possible causes of inflation.

(4) Identify the main cause of inflation.

(5) Describe the different effects of expected vs. unexpected inflation.

B. Recession

(1) Define the term "business cycle" and describe its various phases.

(2) Define the term "recession."

(3) Identify the causes and effects of recessions.

(4) Differentiate between "recession" and "depression."

X. Stabilization Policy

A. Fiscal Policy

(1) Define the term "fiscal policy."

(2) Identify the authorities responsible for implementing fiscal policy.

(3) List the goals of fiscal policy as stated in the Employment Act of 1946.

(4) Recognize situations in which actions by the fiscal authorities are appropriate.

(5) Specify appropriate fiscal policy for the various stages of the business cycle.

(6) Explain the Keynesian, or fiscal, theory of the Great Depression.

B. Monetary Policy

(1) Define the term "monetary policy."

(2) Identify the Federal Reserve System as the agency responsible for U.S. monetary policy.

(3) Describe and explain the purposes of the Federal Reserve System.

(4) Describe the advantages of money over barter.

(5) Describe the purpose of banks and fractional reserve banking.

(6) Explain Friedman's, or the monetary, theory of the Great Depression.

C. Wage and Price Controls

(1) Explain why wage and price controls might be considered an appropriate means of attaining price stability.

(2) List several alternatives to wage and price controls that might be used in order to attain price stability.

(3) Identify at least two drawbacks to wage and price controls.

XI. Economic Growth

(1) Identify the various factors which influence the economic growth of a country.

(2) Describe the economic problems characteristic of developing countries, especially the less developed ones.

(3) Evaluate proposals for solving the economic problems of developing countries.

XII. International Trade

(1) Describe the benefits and costs of international trade.

(2) Explain the meaning of tariffs, quotas, subsidies, embargoes, nontariff barriers, and the arguments for and against them.

(3) Describe a foreign exchange market and its purpose and methods.

XIII. Economic Systems

(1) Describe and analyze the different types of economic systems.

(2) Identify and analyze the values unique to different types of economic systems.

(3) Compare and contrast economic systems in terms of ideology and practice.

The following films are available from:

The Center for Economic Education
University of Hawaii
Porteus Hall, Room 540
Phone: 948-7009

and can be used in conjunction with the curricula in this guide. The films have been listed under those chapters to which they have relevancy. Refer to the bibliography at the end of this listing for film descriptions.

Where a film is one in a series the following abbreviations will be in parenthesis after the film name:

(FER) - The "Fergi" Series
(FC) - The "Free to Choose" Series
(GT) - The "Give and Take" Series
(PMS) - The "People on Market Street" Series
(TO) - The "Trade-Offs" Series

CHAPTER I - INTRODUCTION

No relevant films available on this subject.

CHAPTER 2 - THE ECONOMIC PROBLEM

concept: opportunity cost

22.1*	"Cost" (PMS)
28.1	"Choice" (TO)
28.2	"Malcolm Decides" (TO)
28.3	"We Decide" (TO)
28.4	"Give and Take" (TO)

concept: productivity

9.6	"A Key to Productivity" (GT)
17.0	"Mrs. Peabody's Beach"
22.7	"Wages and Production" (PMS)
28.5	"Less and More" (TO)
28.6	"Working Together" (TO)
28.7	"Does It Pay?" (TO)
28.8	"Learning and Earning" (TO)

concept: scarcity

22.5	"Scarcity and Planning" (PMS)
23.0	"Scarcity"

* Catalog number in film library.

**********CHAPTER 3 - MARKET SYSTEM**********

concept: demand

9.5	"Where Do Jobs Come From?" (GT)
9.9	"Market Prices" (GT)
9.10	"The Changing Market" (GT)
22.2	"Demand" (PMS)
28.10	"To Buy or Not to Buy" (TO)

concept: general

3.0	"Chickenomics"
5.1	"If the Fergi Fits, Wear It" (FER)
5.2	"Fergi Goes Inc." (FER)
5.3	"Fergi Diversifies" (FER)
5.4	"Fergi Meets the Challenge" (FER)
6.1	"Power of the Market" (FC)
7.0	"Freedom 2000"
18.0	"National Economic Quiz"

concept: market production

2.0	"Business Money: Where It Comes From, Where It Goes"
22.3	"Market Clearing Price" (PMS)
28.12	"At What Price?"
28.13	"How Could That Happen?"

concept: supply

9.10	"The Changing Market" (GT)
22.6	"Supply"
28.11	"To Sell or Not to Sell" (TO)

**********CHAPTER 4 - MARKET STRUCTURE**********

concept: general

9.11	"Take Your Choice" (GT)
9.12	"Why Competition?" (GT)

**********CHAPTER 5 - MARKET IMPERFECTIONS**********

concept: externalities

22.4	"Property Rights and Pollution" (PMS)
28.14	"Innocent Bystanders" (TO)
28.15	"Helping Out" (TO)

**********CHAPTER 6 - GOVERNMENT REGULATIONS**********

concept: general

6.2 "Tyranny of Control" (FC)
6.4 "From Cradle to Grave" (FC)
6.5 "Created Equal" (FC)
6.6 "What's Wrong With Our Schools?" (FC)
6.7 "Who Protects the Consumer?" (FC)
6.8 "Who Protects the Worker?" (FC)
6.10 "How to Stay Free" (FC)
9.1 "You Choose" (GT)
9.2 "We Choose" (GT)
12.0 "Incredible Bread Machine"
15.0 "Libra"

**********CHAPTER 7 - THE NATIONAL ECONOMY**********

concept: gross national product

11.0 "Gross National Product"

**********CHAPTER 8 - AGGREGATE SUPPLY**********

No relevant films available on this subject.

**********CHAPTER 9 - AGGREGATE DEMAND**********

No relevant films available on this subject.

**********CHAPTER 10 - THE BUSINESS CYCLE**********

concept: inflation

1.0 "Anatomy of Inflation"
4.0 "The Entire Case Study of Our Present Problem: Close-up on Inflation!"
6.3 "Anatomy of a Crisis" (FC)
6.9 "How to Cure Inflation" (FC)
10.0 "The Great American Robbery: Can We Arrest Inflation?"
13.0 "The Inflation File"
19.0 "One Company Fights the Battle"
29.0 "What is Inflation?"

**********CHAPTER 11 - STABILIZATION POLICY**********

concept: stability

26.0 "Stability: The Quest and the Question"

**********CHAPTER 12 - ECONOMIC GROWTH**********

concept: economics

25.0 "Some Call It Greed"

**********CHAPTER 13 - INTERNATIONAL TRADE**********

No relevant films available on this subject.

**********CHAPTER 13 - ECONOMIC SYSTEMS**********

No relevant films available on this subject.

**********MISCELLANEOUS**********

concept: consumer credit

9.3 "Let's Save" (GT)
9.4 "Creditwise" (GT)

concept: economic education

4.0 "Learning Games and Simulations"
8.0 "Getting to Know Hawaii's Visitor Industry"
21.0 "A Part of the Main"

concept: labor

27.0 "This is the ILWU"

concept: money

24.0 "Scrooge McDuck and Money"
28.8 "All About Trade-Offs" (TO)
28.9 "Why Money" (TO)
30.0 "A World Without Money"

concept: stock market

16.0 "Market in Motion"
20.0 "One Man Band"

concept: taxation

9.7 "Changing Taxes" (GT)
9.8 "Private or Public?" (GT)

1.0 "Anatomy of Inflation" McGraw-Hill Films: 16mm color; 23 minutes, 1970.

Excellent film dealing with roots of our present problems of inflation and unemployment. Starts with the tax cut of 1964 and follows the U.S. economy through the Vietnam War and its economic aftermath. Concludes with Nixon saying, "Those who bet on inflation will lose their bets." (High School and College Level)

2.0 "Business Money: Where It Comes From, Where It Goes" Chevron Companies: 16mm color; 13 minutes.

This film is the story of a business venture entered into by Sammy the Squirrel, a leading nut producer. Students learn to describe the role of a risk in order to make a profit, and what determines profits. (Elementary and Intermediate Level)

3.0 "Chickenomics: A Fowl Approach to Economics" Cinema Associates, Inc. Films: 16mm color; approximately 20 minutes; 1980.

This film explains the following five aspects of the U.S. market economy: 1) private ownership of economic resources, 2) consumer sovereignty, 3) markets, 4) self interest motive, 5) competition. (All Ages)

4.0-1 "The Entire Case Study of Our Present Problem: Close-up on Inflation!"
4.0-2 ABC News: Part I and II, two reels, 16mm color; 54 minutes; Phoenix Films, 1975.

Views of Nobel prize-winning economist, Paul Samuelson; those of corporate business, politicians, workers, and consumers are featured in this carefully researched and clearly documented presentation of the seemingly unrelated political, social, and natural factors which have combined to create a unique form of economic imbalance called "stagflation." Its historical background, the three basic tools available to government in controlling it and the effects of the crisis are explored. (High School and College Level)

FERGI SERIES

5.1 "If the Fergi Fits, Wear It" Walt Disney Productions: 16mm color; 22 minutes; 1977.

Students learn how businesses begin, with a concept, prototype, production, capital outlay, and merchandising besides an introduction to a basic business vocabulary in this clear, step-by-step demonstration of the free enterprise system at work. (High School and College Level)

5.2 "Fergi Goes Inc." Walt Disney Productions: 16mm color; 23 minutes, 1977.

Students learn how capital is acquired, how advertising increases business and how incorporation protects the businessperson besides explaining the differences between a partnership and a corporation. (High School and College Level)

5.3 "Fergi Diversifies" Walt Disney Productions: 16mm color; 25 minutes, 1977.

Students will learn about distribution networks, mergers, stock sales, and capital expansion loads. (High School and College Level)

5.4 "Fergi Meets the Challenge" Walt Disney Productions: 16mm color; 22 minutes; 1981.

As Fergi Inc. continues to expand, students learn how businesses cope with product successes and failures. The importance of risktaking and creative problem-solving are explored. Fergi Inc. must recoup its losses from a weak product and convince stockholders that the company will remain strong. Students learn how businesses avoid duplication of effort and how management delegates authority. Test marketing is explored as a step toward mass-marketing and students learn that business needs creative people and detail-oriented people, organizers and decision-makers. (High School and College Level)

FREE TO CHOOSE SERIES

6.1 "The Power of the Market" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

Milton Friedman, 1976 Nobel Laureate in economics, opens the series with a fascinating look at how free markets work. Friedman explains Adam Smith's idea that the free market coordinates the activities of millions of people who are strangers to one another. The free market, combined with Jefferson's declaration of human liberty, produced economic miracles in the U.S. and a standard of living that is the envy of the world. The same miracle is taking place today in Hong Kong, where government has deliberately chosen not to direct the economy. (High School and College Level)

6.2 "The Tyranny of Control" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

What should a modern government do to protect its domestic industries from competition with cheaper, foreign-made products? "Nothing" answers Milton Friedman. The lesson of history is clear. Great Britain became "great" only when it adopted free trade; Japan's prosperity stems from its decision of a hundred

years ago to follow the British model. (High School and College Leve!)

6.3 "Anatomy of Crisis" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

The "Great Depression" was directly caused by the failure of the Federal Reserve System to exercise its power and responsibility to prevent runs on banks, bank closings, and a drastic decline in the quantity of money. Milton Friedman says that the idea that capitalism had failed is a myth many still believe. Friedman also shows how the depression was exported to Europe and back again to the U.S., through the mechanism of the gold standard. The terrible irony of belief in the failure of free enterprise is that it leads directly to another myth: that government should cure the economy when, in fact, goverment intervention is the cause of many economic ills. (High School and College Level)

6.4 "From Cradle to Grave" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

The welfare system in the U.S. began with the best of motives and has ended up with deplorable results. Welfare is dangerous and wasteful, says Milton Friedman. Recipients of welfare are treated like children, with their decision-making power and personal freedom taken away by well-meaning bureaucrats. Bureaucrats cannot, and do not, spend your money as wisely as you yourself and welfare creates a large pot of money waiting for abuse. Friedman says the best answer to the welfare mess is a negative income tax, which would assure a minimum income to all. (High School and College Level)

6.5 "Created Equal" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

From dancing girls in silks in the marble palace of a rich maharajah, to the gritty alleys where India's poor live out their lives, Milton Friedman questions what is fair and what is equal. One of our most dangerous myths about equality is the belief that everyone should be equal in what he/she has, that everyone should end in the same place. Friedman shows how this distortion of the meaning of equality threatens our freedom. (High School and College Level)

6.6 "What's Wrong With Our Schools" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

The problem with education in America has two sources, says Milton Friedman. Control over their children's education has been taken from parents and there is no relationship between

what parents pay in taxes and the quality of education their children receive. A cure for both is a voucher system. As Friedman explains on a tour of American schools, from the last one-room schoolhouse in Vermont to a Boston high school where students are frisked when they come to school in the morning, the voucher system would return educational decisions to a market basis, with schools as sellers competing for customers, or students, who, in turn, are buying education, determined to get their money's worth. (High School and College Level)

6.7 "Who Protects the Consumer?" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

Free markets are the best protection for the consumer, says Milton Friedman, not government regulatory agencies. Taking his proof from history and the performance record of government agencies, rather than from what they are supposed to have done, Friedman shows how government regulations and agency watchdogs lead directly to increased prices. The end result is protection of only special groups of producers and increased importance of bureaucratic organizations. And what about the Corvair, the car that led directly to the modern consumer protection movement? Who said you had to buy one? (High School and College Level)

6.8 "Who Protects the Worker?" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

What do licensed physicians, skilled laborers and government civil servants have in common? They are all members of closed shops, says Milton Friedman. Friedman shows that when they gain, many more of us lose. Employers lose; government protected unions and minimum wage laws make hiring economically difficult and sometimes impossible. Blacks, teenagers and the poor lose; they are the ones not hired. Consumers lose; they pay higher prices to offset higher wages. Taxpayers lose; they pay for overly generous fringe benefits for government workers. The best protection for the worker, and for society is the worker's freedom to choose. (High School and College Level)

6.9 "How to Cure Inflation" Woln, Public Communications, Inc. Films: 16mm color; 30 minutes; 1980.

Milton Friedman visits a ghost town and a tobacco grower to show what money is and how it works. With film shot in London, Tokyo, West Berlin and Washington, Friedman provides the answer to inflation. "Stop the presses!" The presses in this case print money. Inflation, as Friedman explains, is the inevitable result when the quantity of money grows faster than goods and services are produced. (High School and College Level)

6.10 "How to Stay Free" Woln, Public Communications, Inc. Films: 16mm color; 60 minutes; 1980.

"When you stand before a civil servant from the tax office is there any real doubt in your mind who is the servant and who is the master?" asks Milton Friedman. Concentrated power in the hands of a few, even elected representatives is the most serious threat to freedom, as Friedman shows in the final program in the series. And we are to blame because we have allowed it to happen; we must stop looking to government as the source of all good things. (High School and College Level)

7.0 "Freedom 2000" Chamber of Commerce of the United States: 16mm color; 22 minutes.

In this Hanna Barbera film, visitors from another planet observe the earth, discussing and speculating about its future. This science fiction view of America and its economic system by intelligent beings from another world brings into focus the history, problems, and priorities of America and its business system as we near the last quarter of the twentieth century. (High School and College Level)

8.0 "Getting to Know Hawaii's Visitor Industry" The Visitor Industry Educational Council: 16mm color; 10 minutes; 1978.

Colorful film stars local entertainer Al Harrington, who stresses the importance of tourism as Hawaii's leading industry in terms of employment, income, etc. (High School and College Level)

GIVE AND TAKE SERIES

9.1 "You Choose" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

When two teenagers decide to earn money over vacation painting an apartment, they find they have difficulty budgeting their time and managing their money. They learn an easy five-step decision-making model that helps them find good solutions to their problems. (Secondary Level)

9.2 "We Choose" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

A lunch-hour jaywalking accident at school confronts the student council with a conflict between individual rights and social responsibilities. Crossing guards are one answer, but there's no money to pay for them. What to do?

They discover that, when the issue is consumer protection, reconciling conflicting goals is not an easy task. (Secondary Level)

9.3 "Let's Save" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

A rock trio decides it is a good trade-off to give up movies, records, and other of life's pleasures to save money for new outfits. Then the special needs of one of the group's members gives them other opportunity costs to consider and a new decision to make. (Secondary Level)

9.4 "Creditwise" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

There are many good things about credit, and a young spendthrift has discovered most of them. But when her credit begins to run out, her parents, her best friend, and even her little sister try to convince her that she would be wise to consider the opportunity costs of credit as well. (Secondary Level)

9.5 "Where Do Jobs Come From?" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

When his mother loses her job because the product she helps manufacture is no longer in great demand, a young man is certain he made the right choice. He will quit his job and train for another in a field where the demand for a service will keep him in demand, too. But his sister faces a tough choice of whether to take a chance and begin a singing career or try more cautious paths. (Secondary Level)

9.6 "A Key to Productivity" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

Two friends find that learning a new job skill leads to increased productivity and to better opportunities. When the competition comes looking for skilled workers, each boy begins a reevaluation of his career plans in light of his newly-acquired worth. (Secondary Level)

9.7 "Private or Public?" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

Everyone likes the new park the sophomore class has created on a privately-owned lot and now a businessman wants to buy it. Should the park be sold to a private concessionaire for his fast food trolley or should the city try to find the funds to buy it for a public park: should it be private or public? (Secondary Level)

9.8 "Changing Taxes" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

A teenager loses more than his job when the city reduces services after the voters approve a tax cut. Without money to buy a car, how will he visit his girl, who lives in another city? Romance receives an unexpected benefit when his father's refuse collection business expands in the wake of a reduction in another city service and a new set of wheels becomes available. (Secondary Level)

9.9 "Market Prices" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

This combination of documentary and dramatic vignettes explores the many effects a change in the price of sugar has on consumers and the marketplace. (Secondary Level)

9.10 "The Changing Market" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

Three teens go into business for themselves and find it is not always easy to balance supply with demand. First the demand for their new uni-sex perfume exhausts their supplies, then a drastic drop in demand has them searching for new ways to sell their product. (Secondary Level)

9.11 "Take Your Choice" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

There are substitutions for almost everything--from new improved products to more economical ones. When the only delivery truck in a rural community is wrecked, a teenager finds a way to save his beloved horse. He proves that sometimes it makes economic sense to substitute old ways for new. (Secondary Level)

9.12 "Why Competition?" Agency for Instructional Television: 16mm color; 15 minutes; 1982.

There's a monopoly at the school concession stand and prices are high. A group of students decides that some competition could help the entire student body. It works; the prices come down all right, but can the group operate its business this way forever? (Secondary Level)

10.0-1 "The Great American Robbery: Can We Arrest Inflation?" McGraw-Hill Films:
10.0-2 Part I and II, two reels, 16mm black and white; Part I (22 minutes) and Part II (30 minutes).

The made-for-TV news films deal with causes and possible cures for inflation. (High School and College Level)

11.0 "Gross National Product" McGraw-Hill Films: 16mm color; 10 minutes; 1971.

This film introduces the notion of production and consumption of goods and services with a mixture of the kinds of products which are produced in the United States. It then defines the concept of Gross National Product and examines the contributions of the consumer, business, and government sectors of the economy to GNP. The concepts of inflation and aggregate demand are also explained. (High School and College Level)

12.0 "The Incredible Bread Machine" World Research Inc.: 16mm color; 54 minutes; 1975.

Begins with an introduction by William E. Simon, Secretary of the Treasury. Then, the film of 32 minutes itself is shown. It looks at the connection between personal and economic freedon, and finally discussions are conducted by Dr. Walter Heller and Dr. Milton Friedman with Dr. Benjamin Rogge. (High School and College Level)

13.0 "The Inflation File" World Research Inc.: 16mm color; 26 minutes; 1979.

The film traces the work of detective Avery Mann as he tackles the toughest case of his career; finding the cause of inflation. The film encourages people to think, to question what they have accepted as the causes of inflation, to do their own "investigation" of the false causes and understand what the source of inflation is, and why it will continue as long as treatment is based only on false causes. (High School and College Level)

14.0 "Learning Games and Simulations" College of St. Thomas Economic Education Center: 16mm black and white; 35 minutes; 1972.

This film provides the guidelines in the use of learning games and simulations. It deals specifically with the selection and use of games, and the limitations and the problems encountered during the processes of playing games, and the evaluation of behavioral changes in students as a result of game play. The games Starpower and Marketplace are used to illustrate game procedure. Written guidelines accompany the film. (College Level)

15.0 "Libra" World Research Inc.: 16mm color; 40 minutes; 1970.

A free market space film that trumpets the "outrageous" idea that a free market system is more humane and less oppressive than bureaucratic regulations and controls. (High School and College Level)

16.0 "Market in Motion" New York Stock Exchange Film: 16mm color; 12 minutes.

Briefly outlines the capital formation process and explains how individuals play a role in this process. (High School and College Level)

17.0 "Mrs. Peabody's Beach" Walt Disney Productions: 16mm color; 24 minutes; 1971.

This film is a practical course in the laws of supply and demand, capital investment and depreciation, diminishing returns, and other aspects of basic economics when a deserted beach is developed as a profitable business. (High School and College Level)

18.0 "National Economic Quiz" Aetna Life and Casualty: 16mm color; 27-30 minutes; 1976.

In the form of a quiz, key elements of the American economy such as consumer spending patterns, allocation of scarce resources, profit trends, types of taxation and economic balance are explored. Also, the roles of the consumer, business and government are explained in terms of our "mixed" economy. (High School Level)

19.0 "One Company Fights the Battle" ABC News: Covers Part II of the Close-up film. 16mm color; 14 minutes; Phoenix Films, 1975.

This film reports on the current economic crisis of "stagflation" on one company and one worker and his family. (High School and College Level)

20.0 "One Man Band" New York Stock Exchange Film: 16mm color; 13 minutes.

Describes how a corporation begins, grows, incorporates, and is eventually listed on the "big board." (High School and College Level)

21.0 "A Part of the Main" Sears: 16mm color; 28 minutes; Joint Council on Economic Education and Sears, Roebuck Foundation, 1967.

This film points out the need for economic education and dramatically demonstrates how economics influences and

affects the lives of everyone. There are also sequences devoted to the Joint Council and the affiliate councils. (High School and College Level)

PEOPLE ON MARKET STREET SERIES

22.1 "Cost" Walt Disney Productions: 16mm color; 19 minutes; 1977.

Explains the concept of "opportunity cost" where the cost of any good, act, or service is the best alternative opportunity given up. The cost of giving a party is used for illustration. (High School and College Level)

22.2 "Demand" Walt Disney Productions: 16mm color; 21 minutes; 1977.

Begins the presentation of economic analysis with an explanation of the law of demand; the more something costs, the less people want of it. In addition to the price-effect, the film illustrates that factors such as wealth, family size, tastes, and type of work also affect demand. (High School and College Level)

22.3 "Market Clearing Price (Market Price)" Walt Disney Productions: 16mm color; 23 minutes; 1977.

Explains how the price of a good equates the amount demanded with the amount supplied of that good. The film also explains the role of inventories in helping to provide reliable supply at more predictable prices. (High School and College Level)

22.4 "Property Rights and Pollution" Walt Disney Productions: 16mm color; 19 minutes; 1977.

Contrasts how the exchange of well-defined property rights can direct goods to their highest-valued uses with the difficulties encountered when property rights are not well defined or exchangeable. This is illustrated in the context of air and water usage. (High School and College Level)

22.5 "Scarcity and Planning" Walt Disney Productions: 16mm color; 16 minutes; 1977.

Introduces the concept of scarcity--that people want more goods in terms of quantity and quality than are available--and the economic problem of organizing and coordinating the work of many people to achieve production of desired goods. (High School and College Level)

22.6 "Supply" Walt Disney Productions: 16mm color; 19 minutes; 1977.

Shows how the amount produced and supplied responds to market price, and how anticipated sales, selling prices, costs, and profits guide a potential producer. (High School and College Level)

22.7 "Wages and Production" Walt Disney Productions: 16mm color; 18 minutes; 1977.

Applies demand and supply principles to labor--how wage rates affect the kinds and amounts of labor services offered and the amount demanded of those services. Some factors affecting wage rates are also represented. (High School and College Level)

23.0 "Scarcity" Center for Economic Education, University of Hawaii: 16mm color; 23 minutes; 1969.

Filmed in Hawaii, this film presents basic concepts of economics including scarcity and opportunity costs. (High School and College Level)

24.0 "Scrooge McDuck and Money" Walt Disney Productions: 16mm color; 16 minutes; 1975.

Students are educated on economic or money matters with the use of songs, dance and lively choruses. The history of money and a basic economic vocabulary are discussed. Scrooge teaches the concept of how money flow influences inflation and deflation, and how both individuals and the government must budget their money. Surplus capital is invested and wisely used. (Elementary and Intermediate Level)

25.0-1 "Some Call It Greed" 16mm color; 52 minutes; two rolls; LCA 80.

25.0-2

Perspective of how American capitalism was born and how it grew. This absorbing documentary containing historical footage seldom seen before, covers the six-decade development of America's power and wealth. Beginning in the early 1900's, the film traces the impact of the economic growth of this country on its people and on the world. (High School and College Level)

26.0 "Stability: The Quest and the Question" American Bankers Association: 16mm color; 30 minutes; 1970.

Symptoms of economic instability, definition of stability, explanation of how a steady growing economy serves to benefit the American people, and illustrations of how fiscal and monetary policies are designed to promote stable prices, high employment and growing incomes are viewed. (High School and College Level)

27.0 "This is the ILWU" ILWU, Local 142: 16mm color; 15 minutes; 1973.

This film describes the structure and goals of the ILWU in Hawaii. (High School and College Level)

TRADE-OFFS SERIES

28.0 "All about Trade-offs" (Promotional) Agency for Instructional Television: 16mm color; 1978.

Gives good overview of all program components and a rationale for why Trade-Offs can be a useful instructional resource.

28.1 "Choice" Agency for Instructional Television: 16mm color; 1978.

Introduces the important concept of opportunity cost. (Elementary Level)

28.2 "Malcolm Decides" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Provides students with a systematic process for making personal choices. (Elementary and High School Level)

28.3 "We Decide" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Examines social decision making. (Elementary and High School Level)

28.4 "Give and Take" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Examines decisions involving conflicting objectives and indicates that some decisions do not have to involve an all or nothing choice. (Elementary Level)

28.5 "Less and More" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Introduces the general concept of increasing productivity and the accompanying advantages and disadvantages. (Elementary and Intermediate Level)

28.6 "Working Together" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Examines specialization and the division of labor as one way of increasing productivity. (Elementary and Intermediate Level)

28.7 "Does it Pay?" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Deals with investing in capital goods as one way of increasing productivity. (Elementary and High School Level)

28.8 "Learning and Earning" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Examines investment in human capital--the education and training of workers--as one way of increasing productivity. (Elementary and Intermediate Level)

28.9 "Why Money?" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

About voluntary exchange and the convenience of money. People exchange things because both sides expect to benefit from the trade; but direct exchange without the use of money can be clumsy, time consuming, and inconvenient. (Elementary and Intermediate Level)

28.10 "To Buy or Not to Buy" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

Deals with "market demand" and what is a market. (Elementary and High School Level)

28.11 "To Sell or Not to Sell" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

This film is about market supply. (Elementary and Intermediate Level)

28.12 "At What Price?" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

This lesson is about market clearing prices. (Elementary and Intermediate Level)

28.13 "How Could That Happen" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

This lesson emphasizes the interdependence of market prices--that markets do not operate in isolation. (Elementary and Intermediate Level)

28.14 "Innocent Bystanders" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

This lesson deals with ways of reducing the indirect cost that occurs when the actions of some people are harmful to others not directly involved. (Elementary and Intermediate Level)

28.15 "Helping Out" Agency for Instructional Television: 16mm color; 20 minutes; 1978.

This lesson deals with ways of increasing the indirect benefits that occur when the actions of some people are helpful to others not directly involved. (Elementary and Intermediate Level)

29.0 "What is Inflation?" ABC News: Covers Part I of the Close-up film. 16mm color; 13 minutes; Phoenix Films, 1975.

This is an in-depth investigation of the problem of "stagflation" and its historical and political background. (High School and College Level)

30.0 "A World Without Money" Walt Disney Productions: 16mm color; 14 minutes; 1970.

Students are acquainted with the economic concepts underlying credit cards, constructive consumer patterns involving the use of credit cards, and liabilities involved in the indiscriminate use of careless handling of such credit cards. (High School and College Level)

HOW ECONOMISTS CLASSIFY PRODUCTIVE RESOURCES

Introduction: Productive resources are usually classified according to three categories - land, labor, and capital. This lesson introduces the concept of productive resources and helps students discriminate among the three classifications used by economists.

Time Required: 45-50 minutes.

Concepts: Productive resources, Land, Labor, Capital.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the terms "land", "labor", and "capital."
2. Classify specific examples of productive resources according to whether they are examples of land, labor, or capital.

Materials Required:

1. Resources Worksheet.
2. Pizza Signals Worksheet.

Procedure:

1. Remind students that most of the goods and services that we consume must first be produced, and that the production process involves the transformation of resource inputs into the output of goods and services.
2. Tell students that we usually divide productive resources into three categories - "land", "labor", and "capital."
3. Write the definitions of "land", "labor", and "capital" on the chalkboard as follows:

   LAND - Natural resources or gifts of nature, such as trees, fish, wild animals, rain, and sunshine.

   LABOR - Human effort used in making something.

   CAPITAL - Human-made things that are used to make goods and/or services, such as tools, machines, factories, and domesticated animals.

4. Draw a picture of a pineapple (or some other good) on the chalkboard. Ask students to name the productive resources that are used in the production of a pineapple. Cue responses, if necessary, of LAND (sunshine, rain), LABOR (people who plant, tend, and harvest the pineapples), and CAPITAL (irrigation equipment, boxes, tools, harvesting machinery, trucks, and the pineapple plant.)

5. Hand out RESOURCES WORKSHEET. Give students 5 or 10 minutes to complete the worksheet.

6. After students have completed the worksheet discuss the answers and the reasons for their placement in a particular category. Answers are:

CATEGORY	RESOURCE
Capital	axe
Land	oil
Capital	bulldozer
Labor	construction workers
Capital	factory
Land	fish
Capital	hammer
Capital	school desk
Capital	screwdriver
Land	seaweed
Labor	teacher
*Land	trees
Capital	silverware
Labor	doctors
Capital	computer

*Trees that grow wild are LAND; trees that are planted by people are CAPITAL. The same is true of animals. Wild animals are LAND, while domesticated animals are "human-made" and hence classified as CAPITAL.

7. Pass out the PIZZA SIGNALS worksheet. Allow students 10 minutes to finish. Answers are:

LAND	LABOR	CAPITAL
(There are no land resources listed.)	clerk chief baker	telephone form

LAND	LABOR	CAPITAL
	delivery person farmers	dough oven cardboard box electricity flour meat cardboard grain mill salt sausage gasoline paper

8. Debrief the activity by reviewing the definitions of LAND, LABOR, and CAPITAL, and by answering any final student questions.

Source of Activity: This activity is based on a lesson designed by Diane Reinke and Margit McGuire in The Book Company, Washington State Council on Economic Education. Adapted by permission.

RESOURCES WORKSHEET

Look at the list of resources below. Then write what each of them is: land, labor or capital.

Category	Resource
_____	axe
_____	oil
_____	bulldozer
_____	construction workers
_____	factory
_____	fish
_____	hammer
_____	school desk
_____	screwdriver
_____	seaweed
_____	teacher
_____	trees
_____	silverware
_____	doctors
_____	computer

PIZZA SIGNALS

You pick up a telephone and order a large pizza for the family. Within an hour the delivery person arrives at your door. You pay $4.50 and everyone enjoys the pizza. Simple, you say. Yes, on the surface, but did you ever realize that when you made the decision to buy that pizza, you set in motion a train of events and communicated a series of messages along the economic line somewhat as you do when dialing a telephone number. Let's follow the sequence and see what happened to your order:

First of all, you order the pizza to satisfy your needs (you were hungry). Immediately, you lifted the TELEPHONE (a service supplied by a public utility) and ordered the pizza. The CLERK who took your order wrote it on a FORM and passed it through the window to the CHIEF BAKER. He/She looked at it, checked which of his/her bakers was least busy and passed it on. The baker proceeded to mix the DOUGH and prepared his/her OVEN. Within an hour the pizza was ready. The baker put it in a CARDBOARD BOX, called for a DELIVERY PERSON and within minutes it was on its way to you. Still simple, you say. Yes, it's still pretty much a process of hitting down one domino and the rest fall. Let's look a little closer, though.

Your original order used up ELECTRICITY, FLOUR, MEAT, CARDBOARD, etc. Every pizza produced means so much more of these things used. If one pizza used one-half pound of flour, 100 pizzas means a SACK of flour, which means so much GRAIN ground at a MILL and an increase in some planting, irrigating, and reaping activities by FARMERS. Every single pizza is one part of a larger decision to produce more flour. Every pizza bought is in fact a "vote" for the production of more flour. Every pizza bought flashes a message which reads: "more FLOUR, more SALT, more SAUSAGE, more ELECTRICITY, more GASOLINE, more LABOR, more PAPER," and so on.

Classify the resources that went into making pizza pies by writing the underlined words in the appropriate column:

LAND	LABOR	CAPITAL

WHAT'S YOUR CHOICE?

Introduction: Scarcity requires everyone to make choices. "Opportunity Cost" means that every time you make a choice, you must give up something; or you must bear a cost. This lesson introduces the concept "opportunity cost is opportunity lost."

Time Required: 25 minutes.

Concept: Opportunity cost.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the term "opportunity cost."
2. Determine the opportunity cost of a given action.
3. Explain why the cost of an act is the best alternative given up.

Material Required:

1. $2,000 Windfall Worksheet.

Procedure:

1. Introduce the term "opportunity cost" to the class by writing the definition on the chalkboard as follows:

   OPPORTUNITY COST - a decision to do something resulting in giving up something else in order to get it.

2. On the chalkboard write examples of activities students are familiar with such as surfing, football practice, part-time job, homework, hula lessons, band practice, etc. Ask students what is the "opportunity cost" of engaging in these activities, e.g.:

   2 hours surfing vs. 2 hours homework
   football practice vs. part-time job
   hula practice vs. band practice

3. Draw a chart on the chalkboard. Ask for student responses for examples of opportunity cost and record them on the chart.

   EXAMPLE:

ACTIVITY (CHOICE)	OPPORTUNITY COST

4. Discuss with the class the relationship between their personal choices and the opportunity cost of each activity.
5. Distribute worksheet: "$2,000 Windfall."

6. Instruct students to read the worksheet and to fill out the choice and opportunity cost columns.

7. Allow students time to read and complete the worksheet. (10 minutes)

8. After students have completed the assignment, discuss the students' responses.

9. Review with the class the definition of opportunity cost and a decision of choice in relation to opportunity cost. "Opportunity cost is opportunity lost."

Source of Activity: Adapted from Lesson Four, In the Marketplace, Office of the Superintendent of Public Instruction, Washington State. Used with permission.

$2,000 WINDFALL

Your family has received a windfall of $2,000. From the list of suggestions below, place your choices in the left-hand column.

1. $400 to pay income tax owed--can be deferred for another year.
2. $800 for braces for your teeth.
3. $600 for the college education fund.
4. $800 for new dining room carpet.
5. $1,000 for down payment on a beach lot.
6. $200 for a motorbike.
7. $90 for bicycle for your sister.
8. $400 for vacation to Disneyland for the family.
9. $900 to allow your father to finish his college degree.
10. $1,500 for badly needed bedroom added to house.
11. $850 for operation for your mother--she has put it off for years.
12. $400 for Basketball Camp.
13. $200 for new tires for family car--old ones are not safe anymore.
14. $450 for freezer to cut down on food costs.
15. $600 for vacation trip to see grandparents living in Bar Harbor, Maine--they are elderly and have not seen the family for many years.
16. $800 for stereo tape system.
17. $1,000 to send Mom and Dad to Las Vegas for their silver wedding anniversary.
18. $1,200 for new roof for house--old one starting to leak.
19. $500 for new clothes for school.
20. $200 for savings account.

CHOICES	OPPORTUNITY COSTS
$_____	List alternatives totaling $2,000 or less that would have been your next combination of choices. These are your opportunity costs because they are desirable choices that you could not do.
$_____	
$_____	$_____
$_____	$_____
$_____	$_____
$_____	$_____
$_____	$_____
$_____ total ($2,000 or less)	$_____ total ($2,000 or less)

THE CITY COUNCIL'S PROBLEM

Introduction: Scarcity requires every society to make choices. Opportunity cost refers to what must be given up when decisions are made to use scarce productive resources to produce particular goods or services. A decision to produce one good means giving up the possibility of producing something else. This activity is designed to introduce students to the concept of opportunity cost that all levels of government must resolve.

Time Required: 25 minutes.

Concept and Skills: Opportunity cost.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the term "Opportunity Cost."
2. Determine the opportunity cost of a given action.
3. Explain why the cost of an act or decision is the best alternative given up.

Material Required:

1. The Real Cost worksheet.

Procedure:

1. Review with the class the definition of the term "opportunity cost" and the concept of "opportunity cost is opportunity lost." Write definition of opportunity cost on the chalkboard as follows:

   OPPORTUNITY COST: A decision to do something resulting in giving up something else in order to get it.

2. Distribute Worksheet: "The Real Cost."
3. Instruct students to read the worksheet and to fill out the choice and opportunity cost columns.
4. Allow students time to read and complete the worksheet (10 minutes).
5. After the students have completed the assignment, draw the choice opportunity cost chart on the chalkboard. Ask students to explain their choices and why the decision is the best alternative given up. Fill in chart with students' responses.
6. Discuss the relationship of the decision with the opportunity cost. Ask students for examples of current problems facing their local,

state or national governments and the opportunity costs of the decisions. (e.g., U.S. tax cut, hotel room tax, repeal of the 4% tax on food and drugs.)

7. Review definition of OPPORTUNITY COST and answer any final student questions.

Source of Activity: Adapted from Lesson Five, In the Marketplace, Office of the Superintendent of Public Instruction, Washington State. Used with permission.

THE REAL COST

The city of Odessa, the county seat, has 10,000 people, most of whom work in farming, small businesses and county government. It has recently been determined that an army infantry training base will be located nearby. The base will bring to the town 10,000 more people over three years. About half will turn over every twelve months. To provide for this population growth the city should provide the following services:

1. 10 new police officers
2. 3 new police cars
3. 10 new fire fighters
4. 2 new fire engines
5. a new sewage disposal plant
6. new sewer lines
7. 1 new school
8. new library
9. 20 more teachers
10. 100 miles of new roads

The city council's problem is that it has the resources to provide only three of these needed services by the time the base is finished. As a member of the city council, which would you provide and which would you not provide? Tell the benefits the town will receive and explain the opportunity costs involved in this decision. Be prepared to explain your decisions to the class.

CHOICES	OPPORTUNITY COSTS
1.	List the 3 alternatives you valued most, but were unable to include: 1.
2.	2.
	3.
3.	

COLONIAL AMERICA: WHAT CAN WE PRODUCE?

Introduction: All societies have to deal with the central economic problem of "scarcity of productive resources" and the "allocation of their limited resources." This activity relates to the economic problem of scarcity and allocation of resources faced by the early colonists.

Time Required: 60 minutes.

Concepts: Scarcity, Allocation of Productive Resources.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the terms "scarcity" and "productive resources."
2. Classify specific examples of productive resources according to whether they are examples of land, labor, and capital of the three geographic areas of colonial America.

Materials Required:

1. Reading: "Life in Colonial America."
2. Reading: "Crafts in Colonial America."
3. Chart paper and magic marker pens (optional).

Procedure:

1. Write the definitions of "scarcity" and "productive resources" on the chalkboard as follows:

   SCARCITY - Limited resources to satisfy human wants.

   PRODUCTIVE RESOURCES - Resources that can be used to produce other things (i.e., land, labor, and capital).

2. List some examples of land, labor, and capital on the chalkboard. Ask the students to categorize the examples into land, labor, and capital. (e.g. LAND - soil, favorable climate, natural harbor; LABOR - weavers, shipbuilders, farmers; CAPITAL - whale oil, tobacco, indigo.)

3. Distribute the 2 readings:

   a. "Life in Colonial America"
   b. "Crafts in Colonial America"

4. Instruct students to find examples of land, labor, and capital for each geographical area - New England, Middle, Southern Colonies.

5. Allow students time to read the handouts (10 minutes).

6. After students have completed the readings, have students get into groups of fours. Each group is to make a chart listing the productive resources of each colonial geographic area into categories of land, labor, and capital from the information on the readings.

EXAMPLE:

	NEW ENGLAND	MIDDLE	SOUTHERN
LAND			
LABOR			
CAPITAL			

7. Select one student from each group to report to the class their findings. Draw a sample chart on the chalkboard or have each group make a chart on chart paper with marking pen. Have students fill in chart from their group findings.

8. Discuss with the class the placement of the categories of land, labor, and capital of each geographical area.

ANSWERS ARE:

	NEW ENGLAND	MIDDLE	SOUTHERN
LAND	Ocean	Ports Fertile Soil Favorable Climate	Fertile Soil Mild Climate
LABOR	Carvers Shipwrights Cabinetmakers Coopers Blacksmiths Sailmakers	Hatters Traders	Coopers Black Slaves
CAPITAL	Whaling Shipbuilding	Beef Pork Felt	Tobacco Rice Indigo

9. For closure, review the definitions of SCARCITY, and PRODUCTIVE RESOURCES and answer any final student questions.

Source of Activity: Adapted from a lesson plan by Carol Takamoto, Mililani High School.

CRAFTS IN COLONIAL AMERICA

The artisan was an important member of the community in colonial times. At first, many crafts such as baking and weaving were carried on in each colonist's home. As the population grew, professional artisans established businesses in towns and villages. Setting up shop required little more than tools, materials, and a place to work. Often this was the ground floor of the artisan's house. Usually the artisan did the work by hand, perhaps with the help of family members and one or two apprentices.

In larger towns the artisan was a shopkeeper as well as a skilled worker. A sign over the door of the shop picturing the product made, along with a good reputation, were often the only advertisement needed. Artisans in a typical colonial town included cabinet-makers, weavers, dyers, bricklayers, shoemakers, and bakers. Other skilled workers included coopers or barrelmakers, hatters, and shipbuilders.

The cooper was one of the most important workers in the southern colonies. Before crops such as wheat, flour, rice, and tobacco could leave the plantation, they had to be packed into casks, boxes, and barrels. Coopers also played an important role in cities. Every household had to keep kegs for storing away butter, salted fish, and meat. The manufacture of these containers (coopering) was a small industry in itself, employing many skilled people. Most of the artisans on the plantation were Black slaves.

Coopering involved several steps. Long pieces of wood were split into thin slats called staves. These were trimmed to proper width and shape and were stood upright in a circular frame. Metal hoops were placed around the ends of the staves to hold them tightly together. The wood was steamed to make it bend and take shape. Then the lids and the bottoms were put into place.

Another important craft, especially in New York, was hatmaking. The hatter was skilled in turning fur into felt and shaping the felt into top hats called beaver hats. Creating a beaver hat took a great deal of work. First a felt foundation was made by compacting small particles of rabbit fur onto pieces of wet linen cloth. Next came the dipping, drying, shrinking, and stiffening of the foundation, followed by the addition of beaver fur on the outside. Finally, the hat was blocked, dyed, and finished.

Hats were worn by both the rich and the poor, whether they were working, playing, walking, or riding. Hatmaking became such a successful trade in the colonies that England passed a law prohibiting the exporting of hats from the colonies.

Perhaps the most demanding of all the crafts was that of the New England shipbuilder. Building a ship took a year, and many artisans were involved. Among these were shipwrights, carvers, cabinetmakers, coopers, and blacksmiths. Before the vessel could be launched, the skills of the sailmaker and rigger were needed. Large canvas sheets were cut, stitched, and fitted properly. When they were ready, the sails were rigged, or attached to the mast.

New ships were always needed to carry on the growing trade between the colonies and countries overseas. So shipbuilding and trade became a major part of the colonial economy. As a matter of fact, more than half the ships that plied the waters between the colonies and England were made in America.

Source: Adapted from James B. O'Neill, Strategies for Teaching Economics: United States History (Secondary), 1980, Joint Council on Economic Education. Reprinted with permission.

LIFE IN COLONIAL AMERICA

The New England, middle, and southern colonies shared many similarities and were distinguished by many differences. In general, the New England colonies had been founded by groups of people, who formed a religious community. They had agreed to cooperate in discussing and drawing up laws for the common good. Since the rocky New England soil was not suitable for large-scale agriculture, people usually raised only enough food for their own use. Many depended on fishing and whaling or shipbuilding and trading for their livelihood. New Englanders tended to settle in towns, where they lived in closely knit social groups. This led to a form of local government called the town meeting. Here the citizens of the community met to discuss town business, vote on local laws, and elect town officials.

In the southern colonies, the mild climate and fertile land made it possible to establish plantations where tobacco, rice and indigo (a plant used for making blue dye) were grown. These crops were then shipped to England and exchanged for manufactured products. Many of these colonies were founded by people who had received land from the king. Because people lived scattered about on large land holdings, the country was the local political unit. A county court, made up of justices of the peace appointed by the governor, passed local laws and tried civil and criminal cases.

Because of their central location and excellent ports, the middle colonies carried on coastal trade with the New England and southern colonies. Here the excellent soil and favorable climate made wheat an important and profitable crop. Large amounts of beef and pork were also produced and shipped to southern Europe and the West Indies. In the middle colonies there were both county and town units of local government.

No matter where a colonist lived, certain aspects of domestic life were the same. For example, fireplaces provided the only way to cook and heat the house. Candles, whale oil lamps, in addition to the fireplace, were usually the only sources of light. But depending upon the location of the colony and the social status of the colonist, differences in life-styles did exist. A typical southern house on a plantation was often located on a hill. There were gardens and orchards to supply fresh fruits and vegetables. The kitchen, laundry, and smokehouse were located in separate buildings near the house. And much of the household labor was supplied by slaves.

Northern houses usually had small rooms with low ceilings to help keep them warm. In addition to fireplaces portable heating devices filled with charcoal were used to help fight the bitter cold.

Another important aspect of daily life that varied from region to region was education. The close-knit settlements of New England made the founding of schools for children of townspeople practical. Because Bible reading was so important to the Puritans, town leaders in Massachusetts and Connecticut were legally bound to provide elementary schools. Next to Massachusetts, Pennsylvania was the colony that took the most active role in education. Emphasis was put on learning useful skills as well as reading and writing. In the southern colonies there were fewer educational institutions because settlements were scattered. The wealthy students usually had private teachers.

Students who were able to continue their education entered one of the colonial colleges, such as Yale, Harvard, or William and Mary, or went to England for further training. Young colonials who wished to learn a craft

worked under a master until they were skilled enough to go into business for themselves.

Source of Activity: Adapted from Strategies for Teaching Economics: United States History (Secondary), James B. O'Neill, Chairperson, Joint Council on Economic Education.

WHAT IS PROFIT?

Introduction: Profits can be defined as the amount a firm has left after paying its expenses including taxes. The desire to increase profit is also what leads a firm to produce particular goods and services and how they will be produced. It is important to realize that firms cannot stay in business if they do not make a profit in the long run. After tax profits have averaged about 6 percent as a share of national income.

Time Required: Two class periods of 40 minutes.

Concept: Profit.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the term profit.
2. Distinguish (identify) between examples and non-examples of profit.

Materials Required:

1. Attitude survey "What Do You Know About Profit?" (2 copies per student.)
2. Worksheet: "What Is Profit?"
3. Worksheet: "What Isn't Profit?"
4. Reading: "How Big Are Profits?"

Procedure:

1. Hand out attitude survey "What Do You Know About Profit?" to students. Allow students time (10 minutes) to complete survey.
2. After students have completed the survey, distribute worksheet "What Is Profit?" to the students. Allow students time (10 minutes) to read and answer the questions with a yes or no answer.
3. After students have completed the worksheet, write possible definitions of profit on the chalkboard. Possible definitions are the following:
    a. Profit is the difference between the price a company pays for a particular product and the price it charges for that product.
    b. Profit is what remains for the owners of a company after all the expenses, including taxes, have been paid.

c. Profit is the money used to pay the salaries of the managers of a business.

d. Profit is the amount of money a business owner decides to take from the business.

e. Profit is the money business persons make by charging high prices for the goods they sell.

Add any definitions students may offer to the list on the chalkboard.

4. Before discussing which is the accurate definition of profit, distribute worksheet "What Isn't Profit?". Have students read the situations on the worksheet. Allow students 5 minutes to complete reading of examples A-D. After students have completed the reading, match and discuss the definitions of profits given in the previous activity that may illustrate some of the common misconceptions of profits.

5. Then discuss with the students the proper, accurate definition of profit written on the chalkboard. Circle #b on the chalkboard as the correct definition.

> "Profit is what remains for the owners of a company after all the expenses, including taxes, have been paid."

6. Distribute reading "How Big Are Profits?". Allow students 5 minutes to complete their reading.

Second Day:

1. Hand out attitude survey "What Do You Know About Profits?". Explain to students that they may have changed their attitude toward profit after yesterday's lesson. Allow students time (10 minutes) to complete survey.

2. Return the original survey to the students so that they can see how they may have changed their attitude.

3. Discuss with the students which changes are greatest and why. Ask the students why they answered the way they did and request that they present some "facts" to support their opinion.

NOTE: Where students are reluctant to have their opinions discussed, take the mean on the pre-test. After the post-test, take the mean again. Discuss the differences in attitude with the class.

Source of Activity: Adapted from material from the Chamber of Commerce of the United States of America, 1975.

WHAT DO YOU KNOW ABOUT PROFITS?
(Attitude Survey)

Instructions: Listed below are ten statements related to profits. Please indicate whether you agree or disagree with these statements by answering each item as follows:

5 - strongly agree
4 - agree in general
3 - am uncertain
2 - disagree in general
1 - strongly disagree

_____1. Every business producing goods or services is entitled to a profit.

_____2. The entrepreneur deserves a profit because he/she takes risks.

_____3. The profit motive underlies the exploitation of workers.

_____4. The entrepreneur performs a needed function in a market economy.

_____5. Profits are unnecessary.

_____6. Some systems operate without anyone acting as entrepreneurs.

_____7. Many large companies make large profits.

_____8. Profits are a legitimate cost of producing goods and services.

_____9. Consumers should boycott companies which make large profits.

____10. The economy would be better off if profits were more heavily taxed.

WHAT IS PROFIT?

Situation: Let's imagine for a moment that you have suddenly come into a large sum of money. After resisting the immediate impulse to run right out and spend it, you decide to invest it. Now the question is, "What will you do?"

Instructions: Answer the following statements with either a YES or NO.

_____1. Will you invest it in a company which manufactures after-shave lotion for horses, electric coffee spoons, fur-lined rat cages, and sardine flavored cake frosting?

_____2. Will you invest it in a company whose products cost three times as much to produce as almost identical products made by another company?

_____3. Will you invest it in a company which promises to return only your annual investment to you at the end of each year?

Note: If you answered "NO" to each of the questions, you have a good chance of seeing your money grow, for you already have a basic understanding of how a business works. For example, you know that (1) no business can succeed if it makes products nobody wants, (2) no business can succeed if it can't compete with similar businesses, and (3) no business can succeed for very long if it doesn't make a profit.

WHAT ISN'T PROFIT?

Instructions: Match the situations to the definitions of profits given in the previous activity and written on the chalkboard.

EXAMPLE 1: _____

Malia Kealoha, a dress shop owner, sells fashionable dresses for about $40. She pays a wholesale distributor about $25 for each dress. If she sells each $25 dress for $40, she makes $15, or 37.5% profit.

EXAMPLE 2: _____

Robert Lopaka and Stephen Chang are partners in the Gung-Ho Home Improvement Company. Both have sons who will be starting college next year. To finance their sons' education, Lopaka and Chang decide that they will increase their profits by 10% in the coming year.

EXAMPLE 3: _____

Bill Nakamura is one of dozens of young men and women who deliver The Daily Islander to the citizens of rural O'ahu every morning. There are 100 customers on his route. Each customer pays him 15¢ per issue, 11½¢ of which goes to the newspaper. Bill would like to increase his profit by charging each customer 16¢ per issue, giving him 4½¢ per issue profit rather than 3½¢.

EXAMPLE 4: _____

Econo-Markets, a national discount department store, did not have a very good year last year. Consequently, this year its managers had to take a reduction in pay.

WHAT ISN'T PROFIT?
(Answer Sheet)

1. Example 1: #a

   The 37.5% is gross profit. Out of that 37.5% must come the money for running the dress shop -- salaries, rent, lighting, equipment, display racks, etc.

2. Example 2: #d

   Generally a business must sell more products, or complete more services, to increase profits. Prices can be increased, but the business then risks competition from businesses with lower prices.

3. Example 3: #e

   The delivery person, or salesperson, cannot raise the price of a product. Only the company can do that.

4. Example 4: #c

   A store would probably have a very difficult time lowering wages. It may be necessary to reduce the number of employees or close unprofitable stores.

HOW BIG ARE PROFITS?

To get an accurate idea of the size of profits, one has to consider more than specific sums of money. Four million dollars may be a huge profit in one business and quite small in another. To decide how large or small profits are, you must compare them with something, to arrive at a percentage.

Profits are determined by two methods of comparison. One method compares profits with total amounts paid by consumers, or profits as percentage of sales. For example, if a store owner pays a wholesaler $2 for an item and sells it in his/her store for $4, the profit would seem to be 100%. However, out of the gross profit he/she pays, perhaps $1.80, toward rent, salaries, advertising, maintenance, utilities, interest, supplies and other costs of operating his/her business. This leaves 20¢ net profit, or 5% as percentage of sales.

The second method compares profits with the amounts owners have invested in the business, or profits as percentage of owners' investment. For instance, if a man invests $100,000 in his own business in the course of a year and his net income (what's left after all expenses, including taxes, have been paid) is $18,200, his profit as percentage of owner investment is 18.2%.

PROFIT-AND-LOSS STATEMENT

Introduction: Profits are classified as gross profits or net profits and are determined by completing a profit-and-loss statement also called an income statement.

Time Required: 45 minutes.

Instructional Objectives: The student will be able to:

1. Complete a proft-and-loss statement.
2. Determine net profit or loss.
3. Compute gross and net profit as a percent of sales.

Materials Required:

1. Worksheet: "Profit-and-Loss Statement."
2. Set of problems.
3. Diagram of the relationship of sales, costs, and profits.

Procedure:

1. Explain the items on the income statement.
2. Students complete a profit-and-loss statement for each problem.
3. Students compute gross or net profit as a percent of sales as in the following examples.

   Example: I

   If a store earns a gross profit of $64,000 on sales of $160,000, what is the percent of gross profit?

$$\frac{\$64,000}{\$160,000} = .40 = 40\%$$

   If a supermarket sells $150,000 worth of merchandise and has a net profit of $1,600, then the net profit is what percent of the sales?

$$\frac{\$1,600}{\$150,000} = .0106 = 1.1\%$$

Source of Activity: Adapted from lesson plan by Shoshana Herzig, Moanalua High School.

PROFIT-AND-LOSS STATEMENT

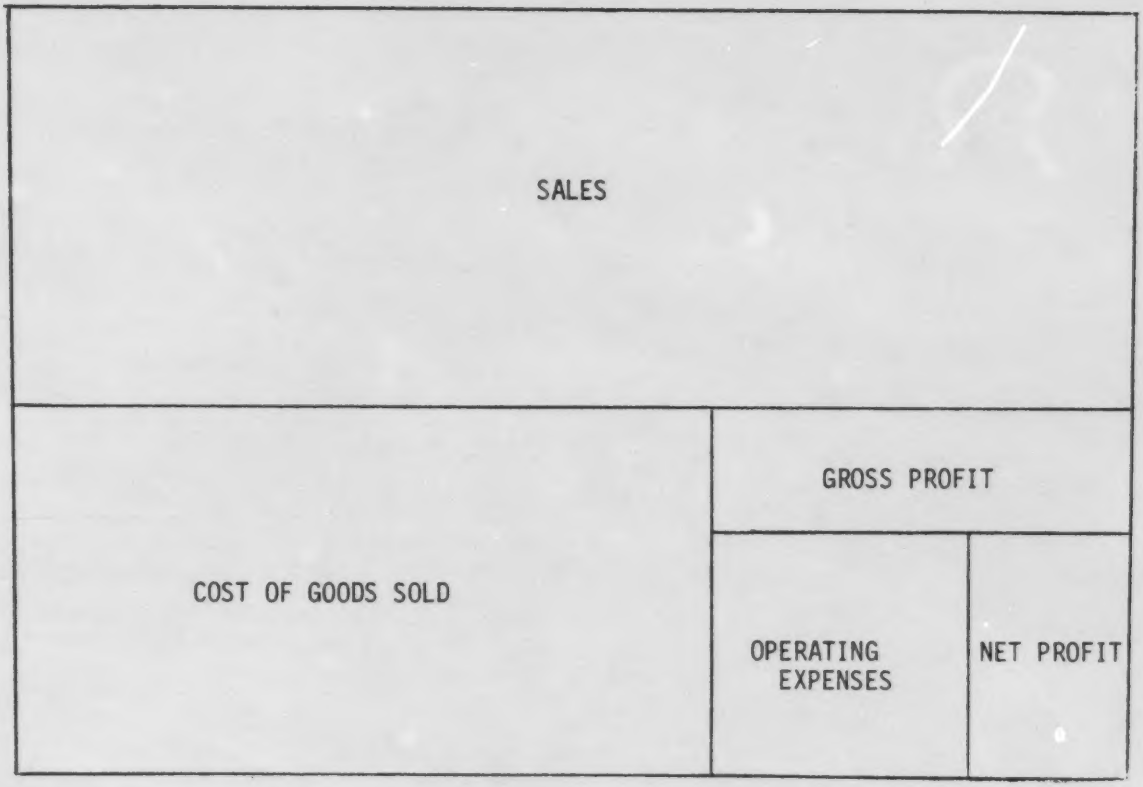
_____ Company

Quarterly Income Statement
June 30, 19__

Income		
Net Sales		_____
Cost of Goods Sold		_____
Gross Profit		_____
Operating Expenses		
Labor	_____	
Rent	_____	
Utilities	_____	
Advertising	_____	
Damage and Theft	_____	
Depreciation	_____	
Insurance	_____	
Shipment and Delivery	_____	
Total Operating Expenses		_____
* Net Profit or Loss		_____

*Note: The expression "the bottom line" comes from the last line of an income statement. In other words, after all the details are said and done what is the final verdict, is there a profit or a loss?

DIAGRAM OF SALES, COST & PROFITS



SET OF PROBLEMS

1. The Shave Ice Co. showed sales of $200,000. They paid wages and salaries of $130,000, rent $10,000, utilities $800, insurance $700, and advertising $500. The cost of the goods sold was $48,000, and depreciation was calculated at $2,000. Complete a quarterly income statement for this company.

   The gross profit is what percent of the sales?

   The net profit is what percent of the sales?

2. The E-2 Discount Co. had total sales of $7.5 million. Cost of goods sold totaled $5.4 million. Operating expenses are rent $0.2 million, depreciation $0.2 million, interest on loans $0.1 million, wages and salaries $1.1 million, shipment charges $0.05 million, and advertising $0.15 million. Complete a quarterly income statement and compute the gross and net profit as a % of sales.

3. Classy Clothiers Co. had total sales of $151,500 and returns of $1,500, wages $20,000, rent $5,000, interest on loan $2,000, theft $1,000, and miscellaneous $2,000. The merchandise sold cost $90,000. Complete a quarterly income statement and compute the gross and net profit as a % of net sales.

ANSWERS TO PROBLEMS

1. Gross profit is:

   200,000 - 48,000 = $152,000

   Net profit is:

   152,000 - (130,000 + 10,000 + 800 + 700 + 500 + 2,000) = $8,000

   Gross profit is 76% of sales: $\frac{152,000}{200,000} = .76 = 76\%$

   Net profit is 4% of sales: $\frac{8,000}{200,000} = .04 = 4\%$

2. Gross profit is $2.1 million.

   Gross profit is 28% of sales: $\frac{2.1}{7.5} = .28 = 28\%$

   Net profit is 4% of sales: $2.1 - (.2 + .2 + .1 + 1.1 + .05 + .15) = .3$

   $\frac{.3}{7.5} = .04 = 4\%$

3. 151,500 -1,500 = 150,000 net sales.

   Gross profit: $150,000 - $90,000 = $60,000

   Gross profit is 40% of net sales: $\frac{60,000}{150,000} = .40 = 40\%$

   Net profit is:

   60,000 - 30,000 = $30,000

   Net profit is 20% of net sales: $\frac{30,000}{150,000} = .20 = 20\%$

HOW MUCH?

Introduction: This activity is designed to enable high school students to understand how changing conditions can change the demand for a good in a market. Special attention is given time-related factors and the availability of substitute goods. Students will become sensitive to the difficult task producers and suppliers have in predicting how much of a good or service consumers will buy at various prices. Hypothesizing also has a motivational effect in this activity by giving students a psychological stake in the outcomes of the activity. It will be useful in showing how innovation has altered traditional business and production arrangements in history.

Time Required: 45 minutes.

Economic Concepts/Skills: Demand, Interpretation of a Demand Curve.

Instructional Objectives: At the end of the activity, students will be able to:

1. Hypothesize the demand for a good in the class and collect data to test their hypotheses.
2. Hypothesize the effect on demand of the availability of a substitute good and collect data to test their hypotheses.

Materials Required:

1. Several oranges or apples or any commodity such as candy, crack-seed, gum, etc.

Procedure:

1. Auction off an orange (or something else) to your students. Ham it up a little with the idea of generating some student interest. After auctioning off the orange, ask how many others would like an orange. Tell the students that you will supply some but first you want to determine the demand for oranges.
2. Introduce the concept of demand as economists would define it:

   Demand - a list of quantities (amounts) of a good or service that an individual or group is willing and able to purchase at different prices.

3. Ask the students to assist you in determining the demand for oranges in this class today. Put a demand chart on the board like the one on following page.

DEMAND

Price	Quantity
30¢	
25	
15	
10	
5	
1	

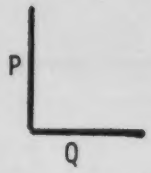
4. Ask the class how many oranges each person will buy at 30¢ per orange and each succeeding lower price. A show of hands and fingers should facilitate quick data collection. An assistant will also help. Emphasize that each student must indicate the quantity at each price which he or she will buy. Once a student indicates a willingness to buy, that student must raise his or her hand at each lower price. The quantity demanded may not increase, but a willingness to buy must be expressed. Emphasize that the oranges they are willing to buy must be consumed by the buyer and his or her family and close friends.

   The following is the data from this activity in a particular class:

Price	Quantity
30¢	0
25	2
20	5
15	9
10	21
5	45
1	79

5. Explain that this list of prices and related quantities illustrates demand as economists define it. A quantity at a particular price is called quantity demanded.

6. Illustrate how demand curves are generated by graphing the class data on the chalkboard:



7. Ask the students to discuss the following questions:

   a) Why were some students willing to pay a higher price than others?
   b) Why is the demand curve almost vertical at high prices and almost horizontal at low prices?

c) How would the demand schedule of an 8:30 a.m. class compare to an 11:30 a.m. class or a 3:00 p.m. class? Why would they differ? (Depending on what you sold, another comparison might make more sense.) If you have data from other classes, graph the demand curves and have students test their hypotheses.

d) What other goods or services are characterized by greater demand at certain times? (Examples: flowers on Valentine's Day, dinner out on Mother's Day, tinsel at Christmas). How could you verify these observations?

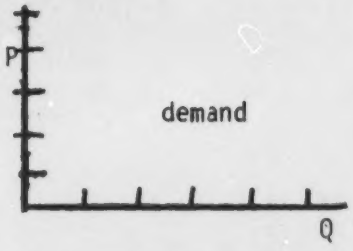
8. Ask students to predict the demand for oranges and the demand for apples given that they can purchase either or both. Students are to record their predictions on the handout. Put a chart like the ones below on the board leaving room for student predictions.

Demand for Oranges	
Price	Quantity
30¢	
25	
20	
15	
10	
5	
1	

Demand for Apples	
Price	Quantity
30¢	
25	
20	
15	
10	
5	
1	

9. Now ask the class how many oranges they want and fill out the chart on the board. Identify the demand for apples in a similar manner.

10. Graph the demand curve for oranges with apples available on the same coordinate axes with the earlier demand curve for oranges. Ask students to articulate why the demand for oranges has declined. Point out that apples are a substitute good. Define term "substitute good" on the chalkboard.



11. Have students graph their predicted demand for oranges and have them explain why they were or were not reasonably accurate.

12. Ask students for examples of goods and services that may be substituted. (Examples: bus rides and taxi rides, chicken and beef, hamburgers and hot dogs, TV movies and local theater movies, bicycles and cars).

Source of Activity: Adapted from Weidenaar and Weiler, Instructor's Resource Guide to Economics: An Introduction to the World Around You, 1976, Addison Wesley Publishing Company, Inc. Reprinted with permission.

HOW MANY SHOULD WE BUY?

Introduction: Demand is the quantity of a good or service a buyer or group of buyers would be willing and able to purchase at various prices at any given time.

Time Required: 45 minutes.

Concepts and Skills: Demand, Plotting a Demand Graph.

Instructional Objectives: At the end of the activity, students will be able to:

1. Identify the quantity of a good they would be willing and able to buy.
2. Collectively construct a chart (schedule) illustrating the class demand for the good.
3. Collectively construct a graph depicting a demand curve, using the class demand chart (schedule).

Materials Required:

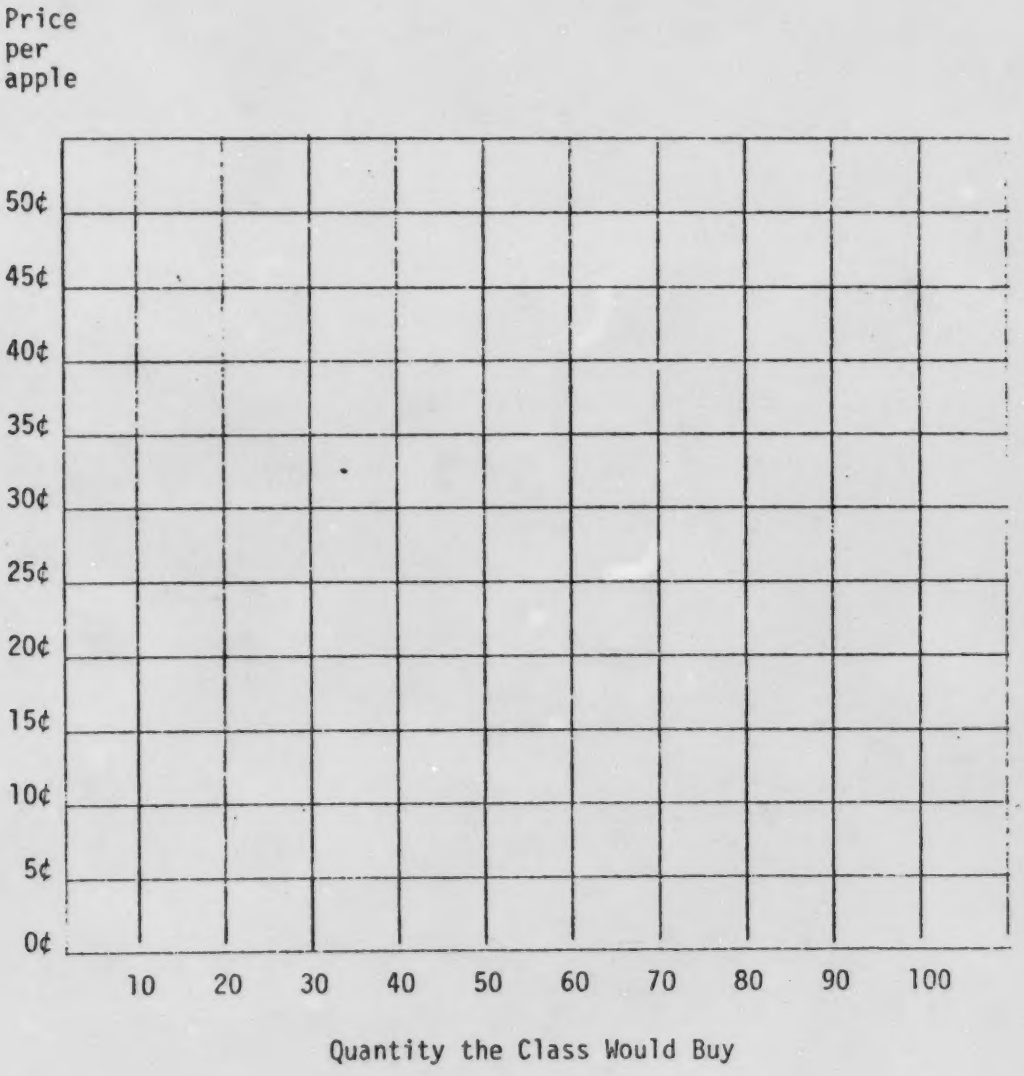
1. An apple.
2. Copies of student response sheet - "My Demand".
3. Transparency - "Class Demand".
4. Overhead projector.

Procedure:

1. The teacher brings to class an apple and shows the apple to the class. After describing the apple and letting students examine it, the teacher asks, "Have you ever bought an apple before?" "Would you be willing to buy such an apple?"
2. Distribute the response sheet, "My Demand," to class members and explain that in the column entitled "quantity" they will be writing the number of apples they would buy at each of the listed prices.
3. As the teacher asks the question, "How many apples would you buy if the apples were ___¢ each," for each price on the "My Demand" sheet, each student fills in the number of apples he/she would buy. Explain how the sheet is to be completed. Point out that if a person would be willing to buy two apples at 30¢ each, he/she would be willing to buy at least two apples (and perhaps more) at 25¢ per apple.

4. Upon completion of individual demand sheets, the class collectively (and perhaps orally) adds up individual responses for the total number of apples demanded by the class at each price. As totals are derived the information is added to the transparency, "Class Demand."

5. On the graph paper below, draw a demand curve from the demand schedule. A graph such as the one illustrated below can be constructed on the chalkboard or presented in transparency form. Select students to plot points on the graph illustrating the class demand at each price. Connect the points.



6. Ask questions requiring students to read and interpret the graph. For example:

   a) How many apples was the class willing to buy at 25¢ per apple?
   b) At what price was the class willing to buy _____ apples?
   c) As the price of each apple went up, what happened to the number of apples the class would buy?
   d) As the price of each apple goes down, what happens to the number of apples the class would buy?
   e) What general statement can you make about how the price of apples influence the number of apples the class would buy?
   f) Do you think these statements are true for other goods (candy, cars, hats)? How could you find out?

7. Follow-up:

   a) If the teacher would like to give individual practice at plotting a graph, each student could make a graph of his/her individual demand. The teacher would explain that:

      1) The various prices are listed vertically on the left hand side of the graph paper (as per the chalkboard example). There should be an equal amount of spacing between any two prices.

      2) The number of apples the individual was willing to buy are listed horizontally along the bottom of the paper. Number of apples should be in a set sequence (e.g., 0, 2, 4, 6, 8; not 0, 2, 5, 6, 10) with the same amount of spacing between any two numbers listed.

      3) Titles should be composed for the column of prices and row of numbers. A title should be created for the entire graph.

      4) Plot the responses from your individual "My Demand" sheet.

   b) Encourage abler students to conduct a survey of the demand of several (at least five) persons for a different product. Their graphs illustrating demand for the products could then be presented to the class.

   c) Introduce information to the class which would change the demand of apples (e.g., consumers suddenly have more income, oranges are on sale, etc.). Speculate as to the effect these new circumstances would have on the demand for apples.

Source of Activity: Adapted from Workshop Leader's Handbook, Joint Council on Economic Education, New York, 1978, pp. 85-86. Reprinted by permission.

MY DEMAND

PRICE PER APPLE	QUANTITY I WOULD BUY
50¢	_____
45¢	_____
40¢	_____
35¢	_____
30¢	_____
25¢	_____
20¢	_____
15¢	_____
10¢	_____
5¢	_____
1¢	_____

CLASS DEMAND

PRICE PER APPLE	QUANTITY THE ENTIRE CLASS WOULD BUY
50¢	_____
45¢	_____
40¢	_____
35¢	_____
30¢	_____
25¢	_____
20¢	_____
15¢	_____
10¢	_____
5¢	_____
1¢	_____

DEMAND-SUPPLY DYNAMICS

Introduction: After you have taught your students the basics of supply and demand, they will need some practice in applying supply and demand to "real world" situations. The following worksheets are designed to give them this practice. Before attempting these exercises students should have a thorough understanding of supply, demand, the determinants of supply and demand, equilibrium price and quantity, and should understand the distinction between changes in supply or demand on the one hand, and changes in quantity supplied or quantity demanded on the other.

Time Required: Each worksheet will take 20-30 minutes to complete. Review of answers will take another 20-30 minutes.

Concepts and Skills: Supply, Demand, Equilibrium, Graphing.

Instructional Objectives: Given specific situations students should be able to:

1. Specify whether or not a determinant of supply or demand has changed.

2. Cite the specific determinant involved in the given situation.

3. Predict the effect of the change in determinant on both equilibrium and quantity.

4. Show the direction of change by shifting the proper curve in the appropriate direction.

Material Required:

1. Demand-Supply Worksheet.

Procedure:

1. Conduct a brief review of the basics of demand and supply. Remind students of the distinction between changes in demand or supply on the one hand, and changes in quantity demanded or supplied on the other.

2. Review the determinants of demand and supply. Although different textbooks may classify these determinants in slightly different ways, the determinants are most often listed as:

   DEMAND - (1) Tastes, (2) Number of buyers, (3) Price and availability of related goods (substitutes or complements) (4) Income, (5) Expectations, (6) Other

   SUPPLY - (1) Price of inputs, (2) Technology, (3) Number of sellers, (4) Expectations, (5) Other

DETERMINANTS OF SUPPLY

I. Cost of production
   - A. Natural resource cost
   - B. Human made resource cost — Price of Inputs
   - C. Human resource cost
   - D. Availability of inputs (example: act of nature)
   - E. Advance or decline in technology
   - F. Interest costs
   - G. Taxes
   - H. Government regulations

II. Increased or decreased competition
   - A. Change in number of sellers
   - B. Input tariffs or other input restrictions

DETERMINANTS OF DEMAND

I. Consumers' income
II. Price and/or availability of substitutes
III. Price and/or availability of complements — (substitutes and complements are often called "related goods")
IV. Tastes (changes in popularity)
V. Quality of product (changes in quality)
VI. Decreases or increases in population

3. Remind students that if one of the determinants of demand or supply changes, the appropriate curve will shift. If no determinant changes, the curve will remain fixed.

4. Hand out the worksheet. Tell students that in every problem except one, the supply or demand curve will shift due to a change in one of the determinants. In one of the problems neither of the curves will shift, but rather a legal price restriction will result in a shortage or surplus.

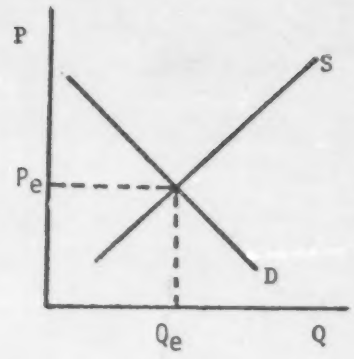
5. Instruct students to read each situation, specify the determinant involved, shift the curve in the proper direction, then specify the effect on equilibrium price and quantity. Give them 20-30 minutes to finish.

6. Review the answers with students (see answers on following pages).

Source of Activity: This activity developed by Steve Jackstadt, UH Center for Economic Education and Shoshana Herzig, Moanalua High School.

DEMAND/SUPPLY WORKSHEET #1

1.



WALL STREET JOURNAL - AUGUST 11, 1969
Bras - U.S

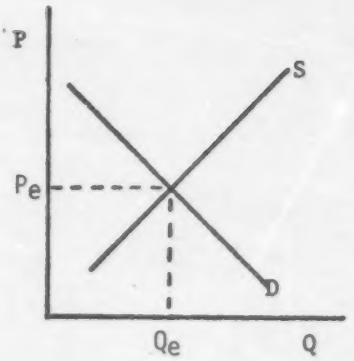
"Getting Things Off their Chests - Girls Take to No-Bra Fad." Women's tastes shift in favor of bra-less fashions.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

2.



Bat Guano - World

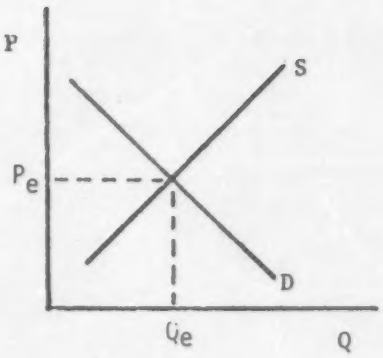
New, easily accessible supplies of bat guano are found in Peru's central highlands. "Fantastic," says International Guano's President Manuel Yuer, "no longer will we need the expensive equipment to mine the guano. We can do this job with shovels!"

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

3.



L.A. TIMES - MAY 1971
Bowl of Rice - Hong Kong

"Bowl of Rice Has Lost Prestige in Hong Kong" Prosperity is no longer just a full bowl of rice in Hong Kong. Now it can be a bowl of Japanese instant noodles, Danish ham or Australian beef. Consumption of rice is steadily declining as eating habits change and supermarkets become more popular. According to government statistics, rice consumption has been declining since 1963 despite a steady increase in the predominantly Chinese population.

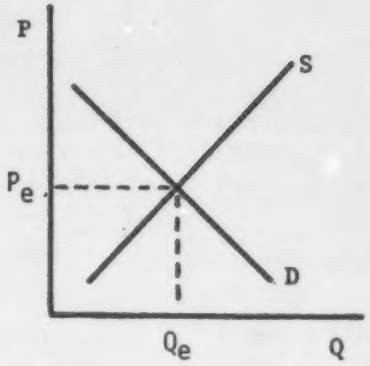
Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

S.F. CHRONICLE, SEPTEMBER 12, 1977

Chicken - U.S.

4. 

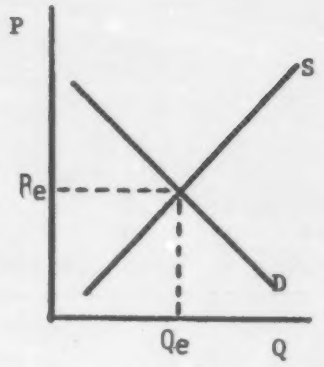
Chicken prices drop as summer turns into fall. Fewer outdoor meals and beginning of school are cited as factors.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

Shrimp - U.S.

5. 

Jellyfish beset Gulf shrimpers

By the Associated Press

Galveston, Texas

Gulf shrimpers long have faced such hazards as fogs and storm, but now they have another problem—jellyfish.

Mass migration by jellyfish through the Gulf of Mexico at this time of the year causes thousands of dollars' damage to shrimp nets and sometimes makes it impossible to trawl.

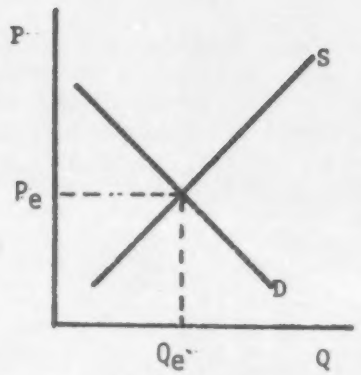
The shrimp season opens in March and closes in December.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

Fish - England

6. 

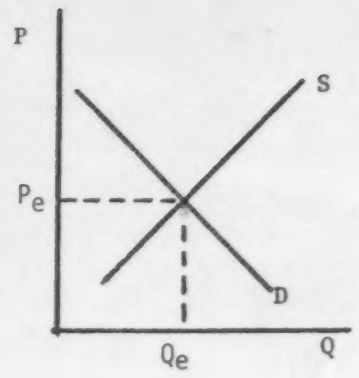
Potato famine reduces supply of potatoes and sends potato prices soaring. (Hint: Fish and chips is a very popular dish in England.)

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

7.



Orchids - Hawaii

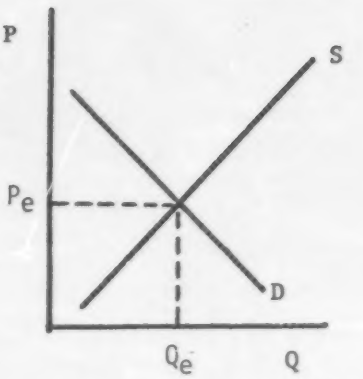
The island of Hawaii has experienced extremely bad weather this year. There were several severe storms and gusts up to 75 mph. Many of Hawaii's flower crops have been damaged, especially the delicate orchids.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

8.



Figs - U.S.

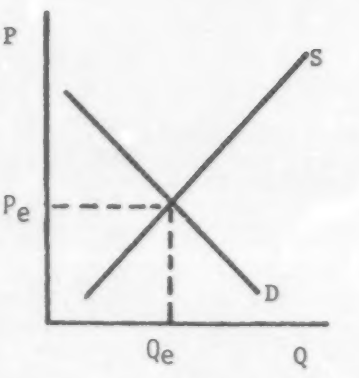
Complaints from U.S. Fig farmers that "we can't earn a decent living with fig prices at current equilibrium levels," have caused Congress to enact a law fixing the price of figs at $1.00 per basket. (Note: Equilibrium price in graph at left is originally $.80 per basket.)

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

9.



HONOLULU STAR BULLETIN - JULY 6, 1972

Beef - U.S.

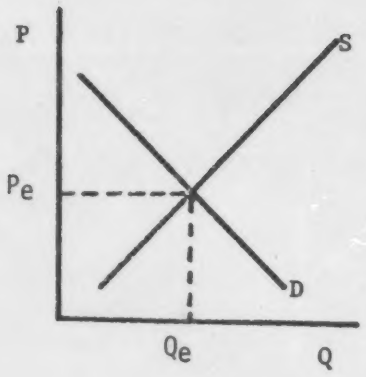
No end seen to soaring meat prices until next year, if at all. The reason behind higher prices is an increase in demand for meat with no increase in supply. Demand is up because the buying power of Americans is greater than ever before.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

10.



Strawberries - U.S.

Mexico pact on strawberries

WASHINGTON (UPI) — The U.S. and Mexican governments have announced an agreement under which Mexican exports of processed strawberries in 1972 will be pared to 82 million pounds, a cut of about 10 million pounds from 1971 and 28 million pounds below the peak shipments of 1970.

Officials here said the agreement was negotiated at the request of farmers in California and other western states who faced increasing competition from Mexican growers.

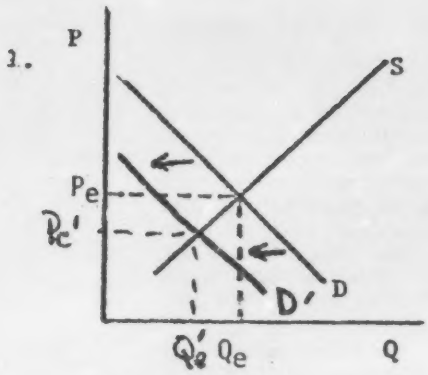
Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

ANSWERS TO SUPPLY/DEMAND WORKSHEET # 1

WALL STREET JOURNAL - AUGUST 11, 1969
Bras - U.S

1. 

"Getting Things Off their Chests - Girls Take to No-Bra Fad." Women's tastes shift in favor of bra-less fashions.

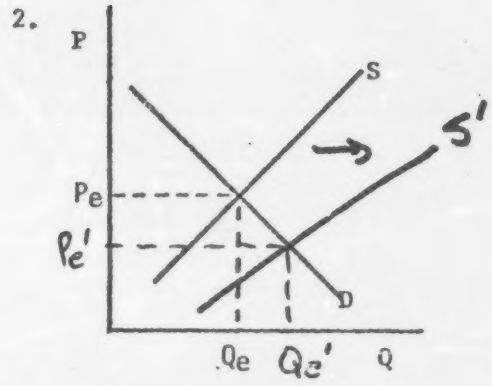
Determinant CHANGE IN TASTES

Effect on Equilibrium P DOWN

Effect on Equilibrium Q DOWN

The bra-less fashion trend will cause the demand for bras to fall, as shown by a shift in the demand curve to the left. The determinant here is tastes. The shift in the demand curve to D' will result in a lower equilibrium price and a lower equilibrium quantity.

Bat Guano - World

2. 

New, easily accessible supplies of bat guano are found in Peru's central highlands. "Fantastic," says International Guano's President Manuel Yuer, "no longer will we need the expensive equipment to mine the guano. We can do this job with shovels!"

Determinant PRODUCTION COSTS

Effect on Equilibrium P DOWN

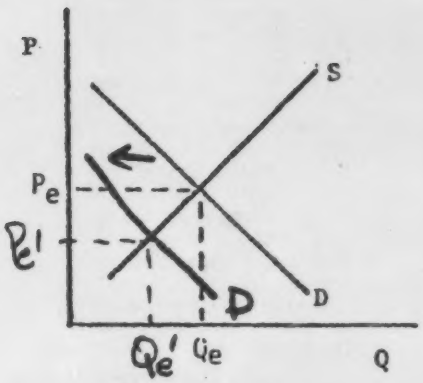
Effect on Equilibrium Q UP

The fact that new, more easily accesible supplies of guano (bat droppings) have been found means that the world supply of bat guano will increase. The determinant is change in production costs, since the guano can now be mined using less expensive equipment. The supply curve will shift to the right, to S', creating a new lower equilibrium price and a larger equilibrium quantity.

3.

L.A. TIMES - MAY 1971
Bowl of Rice - Hong Kong

"Bowl of Rice Has Lost Prestige in Hong Kong" Prosperity is no longer just a full bowl of rice in Hong Kong. Now it can be a bowl of Japanese instant noodles, Danish ham or Australian beef. Consumption of rice is steadily declining as eating habits change and supermarkets become more popular. According to government statistics, rice consumption has been declining since 1963 despite a steady increase in the predominantly Chinese population.



Determinant TASTES

Effect on Equilibrium P DOWN

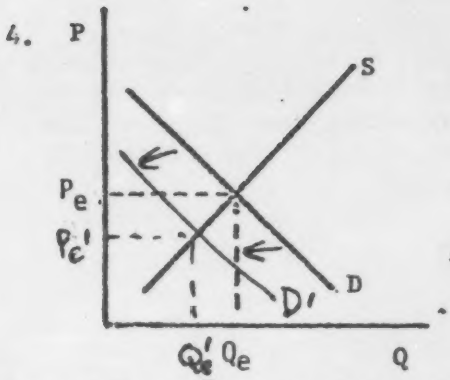
Effect on Equilibrium Q DOWN

A change in tastes away from rice in favor of noodles and other food products will result in a leftward shift in the demand curve for rice in Hong Kong. The shift to D' will mean a lower equilibrium price, and a lower quantity of rice bought and sold.

S.F. CHRONICLE, SEPTEMBER 12, 1977
Chicken - U.S.

4.

Chicken prices drop as summer turns into fall. Fewer outdoor meals and beginning of school are cited as factors.



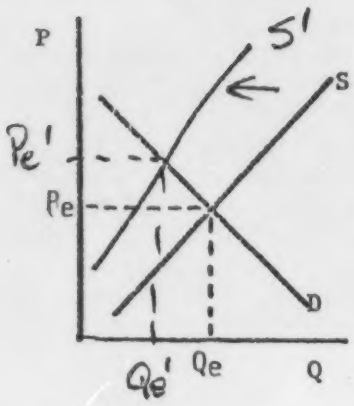
Determinant TASTES

Effect on Equilibrium P DOWN

Effect on Equilibrium Q DOWN

The demand for chicken is typically high in the summer. Chicken, especially fried, is a real popular item in outdoor lunches and dinners. Kids who are on vacation love chicken too! Changing taste is the determinant as both price and quantity fall.

5.



Shrimp - U.S.

Jellyfish beset Gulf shrimpers

By the Associated Press

Galveston, Texas

Gulf shrimpers long have faced such hazards as fogs and storm, but now they have another problem—jellyfish.

Mass migration by jellyfish through the Gulf of Mexico at this time of the year causes thousands of dollars' damage to shrimp nets and sometimes makes it impossible to trawl.

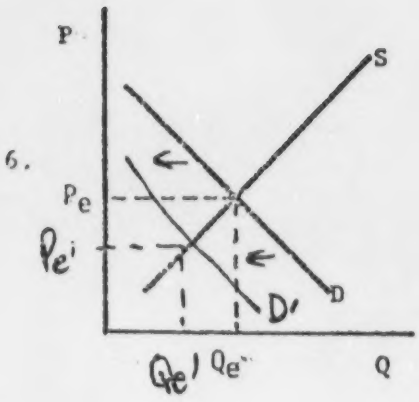
The shrimp season opens in March and closes in December.

Determinant INCREASED PRODUCTION COSTS

Effect on Equilibrium P UP

Effect on Equilibrium Q DOWN

Since the jellyfish have damaged the shrimpers' nets and have often prevented trawling, the supply of shrimp on U.S. markets will decline. This is shown by a leftward shift of the supply curve. The determinant here is increased production costs, since shrimpers will have to buy new nets, burn more fuel trying to trawl, and pay higher wages to their crews for longer hours at sea. The price of shrimp will rise and equilibrium quantity will fall.



6.

Fish - England

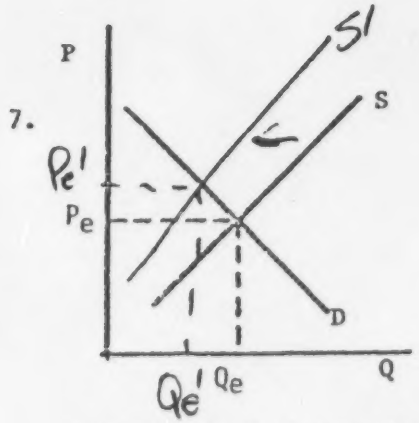
Potato famine reduces supply of potatoes and sends potato prices soaring. (Hint: Fish and chips is a very popular dish in England.)

Determinant PRICE & AVAILABILITY OF RELATED

Effect on Equilibrium P DOWN

Effect on Equilibrium Q DOWN

Potatoes and fish are complements. They are used together to make fish and chips, one of the most popular dishes in England. High potato prices will mean higher prices for fish and chips, all things equal. At higher prices, fewer orders of fish and chips will be sold, and that will reduce the demand for fish. Thus, the demand curve for fish will shift to the left, creating a lower equilibrium price for fish and a lower equilibrium quantity. The determinant is price and availability of related goods (complement). Remember, when the price of something goes up, demand for its complement will go down. An analogy here would be beer and pretzels. If beer prices go up, people drink less beer and therefore consume fewer pretzels.



7.

Orchids - Hawaii

The island of Hawaii has experienced extremely bad weather this year. There were several severe storms and gusts up to 75 mph. Many of Hawaii's flower crops have been damaged, especially the delicate orchids.

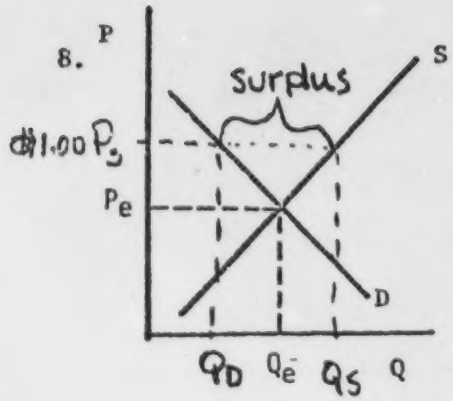
Determinant PRODUCTION COSTS

Effect on Equilibrium P UP

Effect on Equilibrium Q DOWN

The physical destruction of some orchids means a reduction in their supply, as shown by a leftward shift in the supply curve. This results in higher orchid prices, and a lower equilibrium quantity. The determinant here is higher production costs, although you may simply want to cite physical destruction as the determinant.

8.



Figs - U.S.

Complaints from U.S. Fig farmers that "we can't earn a decent living with fig prices at current equilibrium levels," have caused Congress to enact a law fixing the price of figs at $1.00 per basket. (Note: Equilibrium price in graph at left is originally $.80 per basket.)

Determinant NONE

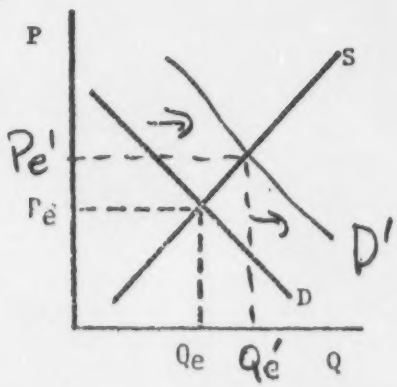
Effect on Equilibrium P N/A

Effect on Equilibrium Q N/A

Since no determinant of either demand or supply has changed, students should not show a shift in either of the curves. The legal support price of $1.00 per basket of figs simply puts the market out of equilibrium. At a price of $1.00 per basket the quantity of figs supplied is greater than a fig surplus equal to size of the gap between the supply and demand curves at a price of $1.00 ($Q_S$ - Q_D). Fig prices have gone up, but fewer figs are sold.

Support prices always create surpluses, which is why the U.S. government has developed surplus-purchase and crop-restriction programs for crops such as wheat and sugar, which are price-supported.

9.



HONOLULU STAR BULLETIN - JULY 6, 1972

Beef - U.S.

No end seen to soaring meat prices until next year, if at all. The reason behind higher prices is an increase in demand for meat with no increase in supply. Demand is up because the buying power of Americans is greater than ever before.

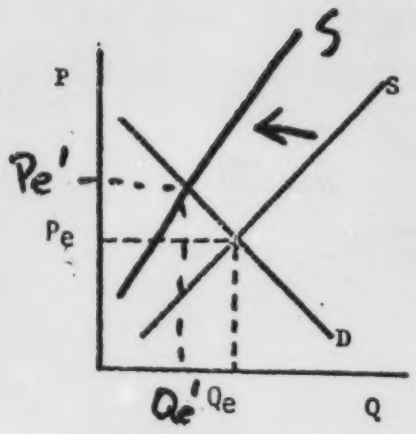
Determinant INCOME

Effect on Equilibrium P UP

Effect on Equilibrium Q UP

Soaring meat prices are the result of higher consumer incomes, which causes the demand curve to shift to the right. The equilibrium price of meat will be higher, and will the equilibrium quantity.

10.



Strawberries – U.S.

Mexico pact on strawberries

WASHINGTON (UPI) — The U.S. and Mexican governments have announced an agreement under which Mexican exports of processed strawberries in 1972 will be pared to 61 million pounds, a cut of about 10 million pounds from 1971 and 23 million pounds below the peak shipments of 1970.

Officials here said the agreement was negotiated at the request of farmers in California and other western states who faced increasing competition from Mexican growers.

Determinant IMPORT RESTRICTION

Effect on Equilibrium P UP

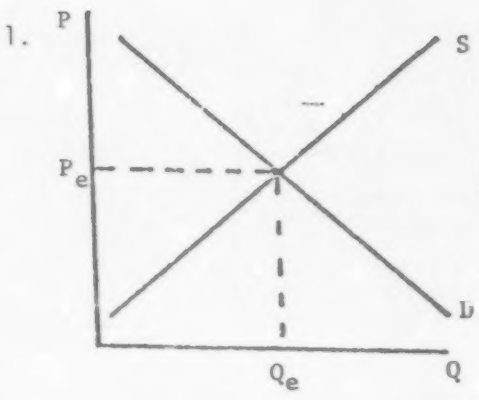
Effect on Equilibrium Q DOWN

The curtailment of strawberry imports will reduce the supply of strawberries in the U.S., as shown by a leftward shift in the supply curve. The result is higher prices and lower equilibrium quanities.

DEMAND/SUPPLY WORKSHEET #2

NEW YORK TIMES-OCTOBER 7, 1979

Bikes - U.S.

1. 

A Banner Year for the Bike; Schwinn Plans a Commuter Model

Spurred apparently by the gasoline shortage and fears of another, the bicycle is having one of its best years ever. Sales — approaching $1 billion — are running 30 percent ahead of last year's rate.

Determinant _____

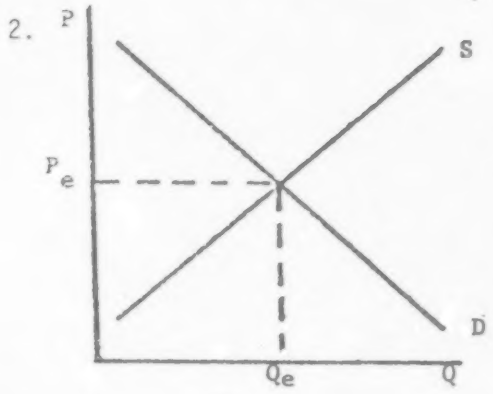
Effect on Equilibrium P _____

Effect on Equilibrium Q _____

HONOLULU STAR BULLETIN-DECEMBER 9, 1979

Papaya - Hawaii

Worst papaya crop since '75 predicted

2. 

(Data and interpretations from Bank of Hawaii)

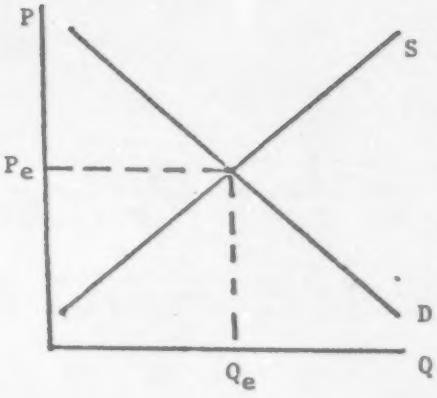
Papaya production is estimated by the Papaya Administrative Committee to decline to an estimated 40 million pounds this year, the lowest level since 1975. The sharp decline from the 64 million pounds produced during 1978 was caused by a number of factors including heavy spring rains and flooding, subsequent high levels of post-harvest diseases and shipping disruptions resulting from a series of strikes by chain warehouses, truckers and airlines.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

Bullet-Proof Glass - World

3. 

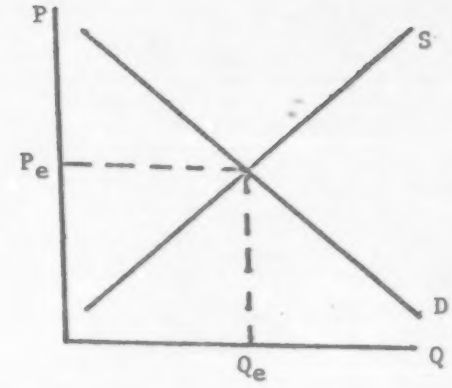
L.A. TIMES - DECEMBER 27, 1979
"Terrorism Spurs Growth for Bullet-Proof Products." World wide terrorism has inspired higher demand and higher prices bullet resistant glass. Most of the increase in demand comes from banks, armored car companies, and credit unions.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

Chicken - U.S.

4. 

HONOLULU ADVERTISER - JANUARY 8, 1980
"Scientific Break-through To Lower Prices"

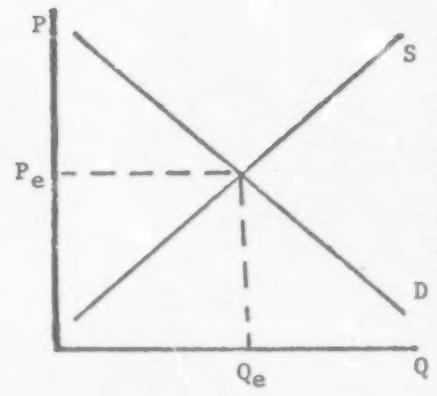
Poultry scientists at South Carolina's Clemson University may soon make chicken plucking extinct. The researchers have hatched a flock of featherless chicks that they say will be tastier and cheaper than the regular variety — cheaper because they'll withstand high temperatures better than their plumed cousins and tastier because the absence of feather follicles in their skin will permit the juices to remain inside during cooking.

Determinant _____

Effect Equilibrium P _____

Effect Equilibrium Q _____

Flashlights - Hawaii

5. 

HONOLULU ADVERTISER - JANUARY 9, 1980
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Determinant _____

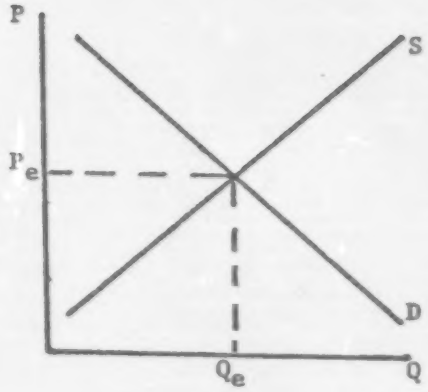
Effect on Equilibrium P _____

Effect on Equilibrium Q _____

HONOLULU STAR BULLETIN - JANUARY 9, 1980
Film - U. S.

Kodak Film Prices to Increase Again

6.



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Kodak is the world's leading maker of film, and its price changes are often followed by smaller companies.

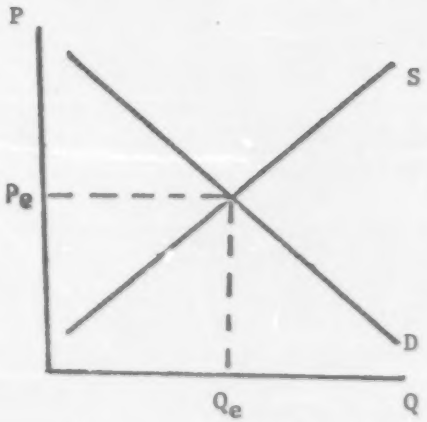
Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

HONOLULU STAR BULLETIN - JANUARY 9, 1980
Eggs - Hawaii

7.



Storm hurts poultry

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The Hawaii Agricultural Reporting Service said power failure, broken pipes and damage to buildings "created hardships to poultry, dairy and other livestock farms."

Hawaii's egg-laying chickens already were on the decline last year, with 2 percent fewer layers in November than a year earlier.

Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

PACIFIC BUSINESS NEWS - DECEMBER 10, 1979
Sashimi - Hawaii

Sashimi to cost $15 a lb.

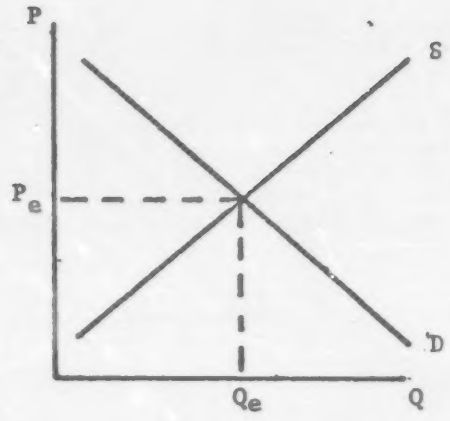
If you're planning to serve sashimi this Christmas season, prepare to pay a high price for it.

A $15-per-pound price for ahi fillets is being predicted by fish buyers here, and they say it could go higher.

Sashimi, or raw fish, is an oriental delicacy that has become a holiday tradition in Hawaii. Thin, cool slices from an ahi (yellowfin tuna) fillet are the preferred fare, although other fish can be substituted.

Every year at Christmastime the price for ahi goes up as demand increases.

8.



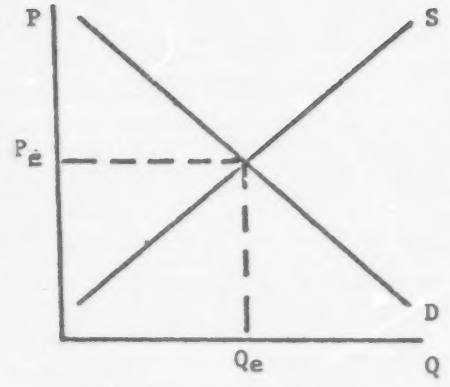
Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

L.A. SUN-TIMES, JANUARY 1, 1981
Rental Units - L.A. County

9.



"Rent Rollback Takes Effect". All rents in Los Angeles must be reduced by 10% effective today. The rollback is the result of a new rent control law passed by the Board of Supervisors.

Determinant _____

Effect on Equilibrium P _____

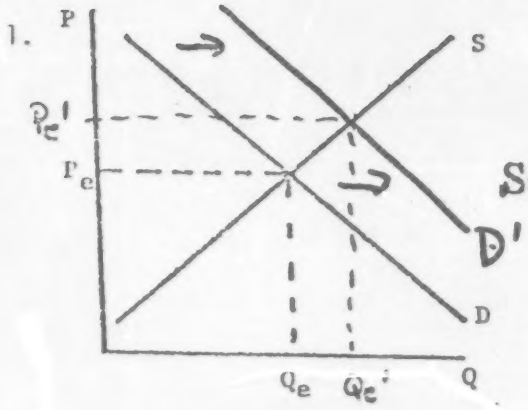
Effect on Equilibrium Q _____

ANSWERS TO DEMAND/SUPPLY WORKSHEET # 2

NEW YORK TIMES-OCTOBER 7, 1979

Bikes - U.S.

1.



A Banner Year for the Bike; Schwinn Plans a Commuter Model

Spurred apparently by the gasoline shortage and fears of another, the bicycle is having one of its best years ever. Sales — approaching $1 billion — are running 30 percent ahead of last year's rate.

Determinant PRICE & AVAILABILITY OF RELATED GOOD

Effect on Equilibrium P UP

Effect on Equilibrium Q UP

Higher gasoline prices and uncertainty over the reliability of gas supplies has increased the demand for bikes. The demand curve will shift to the fight, causing higher prices and a larger quantity of bicycles bought and sold.

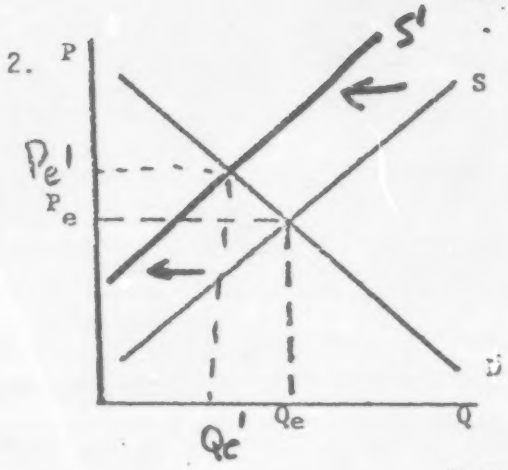
Higher gasoline prices and uncertainty over the reliability of gas supplies has increased the demand for bikes. The demand curve will shift to the right, causing higher prices and a larger quantity of bicycles bought and sold.

HONOLULU STAR BULLETIN-DECEMBER 9, 1979

Papaya - Hawaii

Worst papaya crop since '75 predicted

2.



(Data and interpretations from Bank of Hawaii)

Papaya production is estimated by the Papaya Administrative Committee to decline to an estimated 40 million pounds this year, the lowest level since 1975. The sharp decline from the 64 million pounds produced during 1978 was caused by a number of factors including heavy spring rains and flooding, subsequent high levels of post-harvest diseases and shipping disruptions resulting from a series of strikes by chain warehouses, truckers and airlines.

Determinant PRODUCTION COSTS / PHYSICAL DESTRUCTION

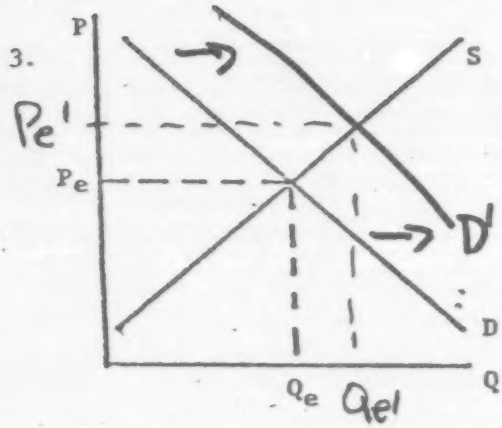
Effect on Equilibrium P UP

Effect on Equilibrium Q DOWN

Various calamities and disruptions have reduced the supply of papayas. The supply curve will shift to the left, resulting in higher papaya prices and a lower equilibrium quantity. You may cite physical destruction or the like as a determinant, although increased production costs would probably be better.

Bullet-Proof Glass - World

3.



L.A. TIMES - DECEMBER 27, 1979
"Terrorism Spurs Growth for Bullet-Proof Products." World wide terrorism has inspired higher demand and higher prices bullet resistant glass. Most of the increase in demand comes from banks, armored car companies, and credit unions.

Determinant TASTES

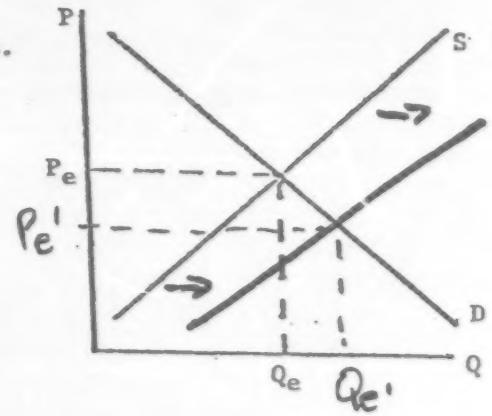
Effect on Equilibrium P UP

Effect on Equilibrium Q UP

The upsurge in terrorism has caused an increase in the demand for bullet-proof glass. The best determinant here would probably be tastes. As the demand curve shifts to the right, a higher equilibrium price and quantity are created.

Chicken - U.S.

4.



HONOLULU ADVERTISER - JANUARY 8, 1980
"Scientific Break-through To Lower Prices"

Poultry scientists at South Carolina's Clemson University may soon make chicken plucking extinct. The researchers have hatched a flock of featherless chicks that they say will be tastier and cheaper than the regular variety — cheaper because they'll withstand high temperatures better than their plumed cousins and tastier because the absence of feather follicles in their skin will permit the juices to remain inside during cooking.

Determinant New Technology

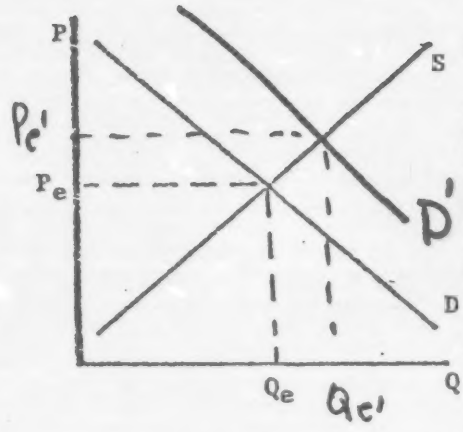
Effect Equilibrium P LOWER

Effect Equilibrium Q HIGHER

New technology has enabled Clemson scientists to breed featherless chickens. Since processors will no longer have to hire chicken pluckers, they can save money in the production process. The supply curve will move out to the right, resulting in lower chicken prices and a higher equilibrium quantity.

Flashlights - Hawaii

5.



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Determinant PRICE; AVAILABILITY OF RELATED

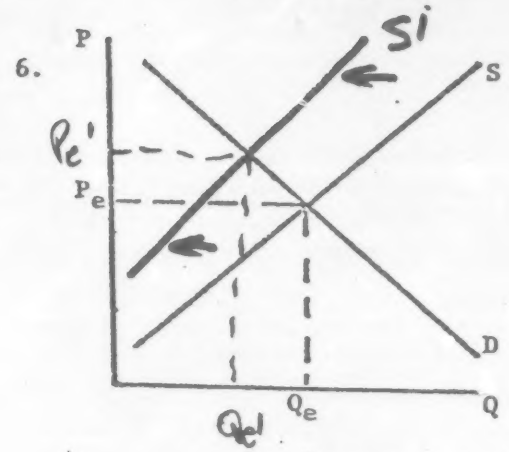
Effect on Equilibrium P UP

Effect on Equilibrium Q UP

The freak storm which caused power outages also caused an increase in the demand for flashlights. The determinant is price and availability of related goods. Electricity, a substitute for flashlights, is not available! The demand curve for flashlights shifts to the right. The price of flashlights goes up, as does the quantity.

HONOLULU STAR BULLETIN - JANUARY 9, 1980
Film - U. S.

Kodak Film Prices to Increase Again



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Kodak is the world's leading maker of film, and its price changes are often followed by smaller companies.

Determinant Production Cost

Effect on Equilibrium P Higher

Effect on Equilibrium Q Lower

The price of silver, an important component in the production of film has gone up. This will cause a decrease in the supply of film, as shown by a leftward shift in the supply curve for film. The result is higher film prices and a lower equilibrium quantity. Determinant is production costs.

HONOLULU STAR BULLETIN - JANUARY 9, 1980

Eggs - Hawaii

Storm hurts poultry

Hawaii's poultry farms were among the hardest hit of the agricultural industry in last week's storm.

The Hawaii Agricultural Reporting Service said power failure, broken pipes and damage to buildings "created hardships to poultry, dairy and other livestock farms."

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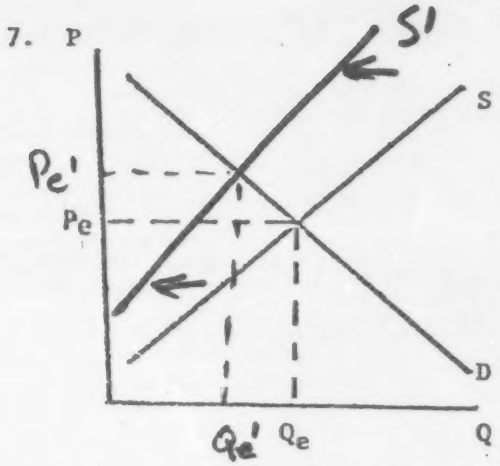

Determinant Production Cost

Effect on Equilibrium P Higher

Effect on Equilibrium Q Lower

The supply of eggs in Hawaii has been diminished by the storm (the same storm that caused the power outages in #5). The resulting damage to facilities, etc. means higher production costs for poultry farmers. The supply curve for eggs in Hawaii shifts to the left, creating a higher price and lower equilibrium quantity.

PACIFIC BUSINESS NEWS - DECEMBER 10, 1979
Sashimi - Hawaii

Sashimi to cost $15 a lb.

If you're planning to serve sashimi this Christmas season, prepare to pay a high price for it.

A $15-per-pound price for ahi fillets is being predicted by fish buyers here, and they say it could go higher.

Sashimi, or raw fish, is an oriental delicacy that has become a holiday tradition in Hawaii. Thin, cool slices from an ahi (yellowfin tuna) fillet are the preferred fare, although other fish can be substituted.

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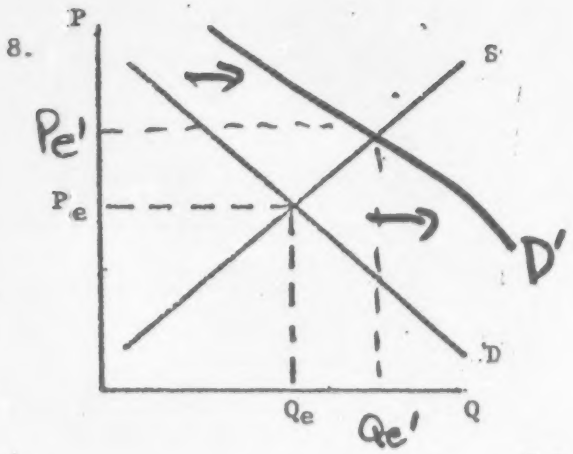


Determinant TASTES

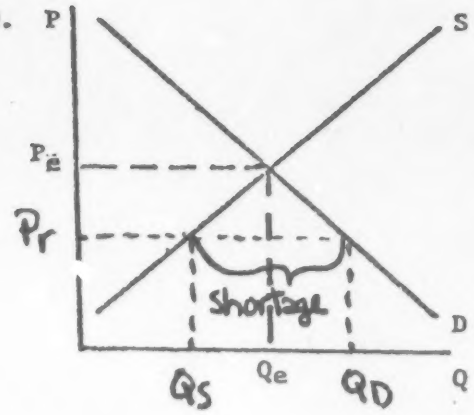
Effect on Equilibrium P UP

Effect on Equilibrium Q UP

The holidays mean a greater demand for sashimi. The determinant is tastes and a rightward movement of the demand curve will mean a higher equilibrium price, and a higher equilibrium qunatity.

L.A. SUN-TIMES, JANUARY 1, 1981
Rental Units - L.A. County

9.



"Rent Rollback Takes Effect". All rents in Los Angeles must be rediced by 10% effective today. The rollback is the result of a new rent control law passed by the Board of Supervisors.

Determinant NONE

Effect on Equilibrium P N/A

Effect on Equilibrium Q N/A

This is the case of a legal price ceiling on rental housing. No determinant of demand or supply has changed. The new price, P_r ("r" for "rollback") is 10% below the old price of P_e. At price P_r, the demand for rental units exceeds the supply and the result is a shortage of rental housing.

Since rent controls have taken effect in Los Angeles, the quantity of rental housing has declined. New units are not being built and old units are being converted to condominiums at a rapid rate.

SUBSTITUTES AND COMPLEMENTS

Introduction: The price and availability of substitutes and complements is an important determinant of the demand for all types of goods and services. This lession is designed to introduce students to the concepts of "substitute" and "complement" and to give them practice in determining how changes in the price of a substitute or complement affect the demand for specific goods and services.

Time Required: One hour.

Concepts: Substitutes, Complements.

Instructional Objectives: Following the lesson students will be able to:

1. Define the term "substitute."
2. Define the term "complement."
3. Give examples of goods and/or services that are substitutes.
4. Give examples of goods and/or services that are complements.
5. Specify whether certain pairs of goods and/or services are substitutes or complements.
6. Specify the effect on the demand for a good or service caused by a change in the price of a related good or service (substitute or complement).

Materials Required:

1. Substitute or Complement Worksheet #1.
2. Substitutes and Complements Worksheet #2.
3. Substitutes and Complements Worksheet #3.

Procedure:

1. Write the word SUBSTITUTE on the chalkboard in bold letters, and ask students what the word means. Accept and record responses on the board. Ask students to cite specific ways in which they have heard the term SUBSTITUTE used (such as "substitute teacher" or "substitute for an injured football player"). Lead students to agree that SUBSTITUTE means "something used in place of something else."
2. Next, write the word COMPLEMENT on the board and follow the same procedure. (Be sure to distinguish between "compliment," with an "i" and "complement," with an "e"). Lead students to agree that COMPLEMENT means "something used with something else."

3. Now that students understand and agree on the everyday uses of these words, give them the economist's definitions of "substitute" and "complement." For SUBSTITUTE, write the following definition on the board:

   SUBSTITUTE: When the price of a good or service goes up (down), the demand for its substitute will go up (down).

   Clarify the definition with several examples such as oranges and apples, beer and wine, potato chips and corn chips.

4. Next, give them the definition for COMPLEMENT:

   COMPLEMENT: When the price of a good or service goes up (down), the demand for its complement will go up (down).

   Clarify the definition with examples such as milk and cookies, beer and pretzels, shoes and shoe laces.

5. When students have grasped the economic meaning of the terms, pass out Worksheet #1 and tell students to indicate whether the pairs of goods listed are substitutes or complements. (The only one you may have trouble with is number 10, wood and steel. Although wood and steel are used together in building and are therefore complements according to ordinary usage, it is also true that they are substitutes. If the price of wood were to soar, steel would doubtless be used as a substitute in building. This pair can be either substitutes or complements, although substitute would seem the better answer.)

6. Pass out Worksheet #2 and see how imaginative your students are when it comes to thinking up substitutes and complements. Numbers 8 through 10 are blank in order that you or your students be allowed to fill in your own examples.

7. Last, pass out Worksheet #3. Again, all the answers are pretty evident except number 8. During the "gas crisis" of 1973-74, when people had trouble getting gasoline, the demand for frozen foods of all types went up. Instead of making several trips to the store in order to get fresh foods, or driving to restaurants, consumers took one trip to the store and stocked up on frozen foods in order to save gas. Therefore, the answer is "up."

Source of Activity: Developed by Steve Jackstadt, Director, Center for Economic Education, University of Hawaii.

SUBSTITUTE OR COMPLEMENT
Worksheet 1

1.	coffee	sugar	complement
2.	coffee	tea	substitute
3.	apple	orange	
4.	oil	tires	
5.	milk	7-up	
6.	phonograph	LP record	
7.	cassette tape	LP record	
8.	beefsteak	lambchop	
9.	cotton	dacron	
10.	wood	steel	

SUBSTITUTES AND COMPLEMENTS
Worksheet 2

ITEM	SUBSTITUTE	COMPLEMENT
1. Pencil		
2. Television sets		
3. Stapler		
4. Eyeglasses		
5. Housetrailer		
6. Scissors		
7. Electricity		
8.		
9.		
10.		

SUBSTITUTES AND COMPLEMENTS
Worksheet 3

1. Price of beer goes up,
   Demand for wine goes _____.

2. Price of lumber goes down,
   Demand for paint goes_____.

3. Price of gasoline goes up,
   Demand for tires goes_____.

4. Price of coffee goes up,
   Demand for tea goes _____.

5. Price of stereo records goes down,
   Demand for stereos goes_____.

6. Price of cloth goes up,
   Demand for thread goes_____.

7. Price of Datsuns goes down,
   Demand for Fords goes_____.

8. Price of gasoline goes up,
   Demand for TV dinners goes_____.

UNIT VS. MASS PRODUCTION: AN EDIBLE ECONOMICS ACTIVITY

Introduction: This activity is designed to give students the opportunity to compare the advantages and disadvantages of unit production with mass production.

Time Required: One class period of 40-50 minutes.

Concepts: Division of labor, mass production, unit production.

Instructional Objectives: At the end of the activity, students will be able to:

1. Compare the differences between unit and mass production.
2. Compare the differences between division of labor versus single worker production.

Materials Required:

1. Package of crackers, jar of peanut butter, jar of marshmallow fluff, two bread and butter knives, four aprons or coverups (because project might be messy), clock with a second hand.
2. One long, covered table.

Procedure:

1. Assemble the following on a long, covered table in front of the classroom: package of crackers, jar of peanut butter, jar of marshmallow fluff, two bread and butter knives, four aprons.
2. Write directions on board: "Take one cracker and put a dab of peanut butter on it. Take another cracker and put a dab of marshmallow fluff on it. Join the two crackers together for a 'sandwich'."
3. Tell students they will be making "Fluffernutters" today. Read the rules of production from the board.
4. Select one student to come to the table. After student puts on apron or coverup, tell student to make as many "Fluffernutters" as possible in 30 seconds. (Teacher is time keeper.)
5. Repeat this procedure with three other students, with each one having 30 seconds to make the treats. Total participants will be four students. Total time will be two minutes.
6. Add up the total "Fluffernutters" made on this unit production basis. Write the total number completed on the chalkboard.

7. Select four students who form a "production line." First student puts out crackers, second puts on peanut butter, third puts on marshmallow fluff and fourth puts two crackers together. Total time is two minutes.

8. Add up total "Fluffernutters" made on a mass production basis. Write the total number completed on the chalkboard.

9. Compare production outputs by the two methods of production. In terms of output, discuss the differences between unit and mass production and between division of labor versus single worker production. Also, discuss how mass production affects costs and profits.

10. Pass out the treats.

11. Form a clean-up production line.

Source of Activity: Adapted from a lesson plan by Emmett J. Cotter, Social Studies Department, City of Warwick Public Schools, Warwick, Rhode Island as appeared in Economically Speaking, Center for the Development of Economics Education, University of the Pacific, Stockton, California.

LANAI'S DILEMMA

Introduction: This lesson is designed to help students define the concept of "opportunity cost" and to formulate a replacement industry for the island of Lanai. Students will also identify and analyze the "opportunity cost" of this newly formulated industry. Opportunity cost is the decision to produce one good which necessitates giving up the possibility of producing something else.

Time Required: 45 minutes.

Concept: Opportunity cost.

Instructional Objectives: After the activity, students will be able to:

1. Define term "opportunity cost."
2. Determine the opportunity cost of a given action.
3. Explain why the cost of an act is the best alternative given up.

Materials Required:

1. Reading: "Pineapple, Bananas, or Why the Young Keep Leaving Lanai."
2. The Real Cost worksheet.

Procedure:

1. On chalkboard, write in bold letters the term "OPPORTUNITY COST." Next to the term , write the following definition as stated:
   The cost of an economic action as determined by the value of the opportunities foregone. Or simply, opportunity cost is opportunity lost.
2. Explain the definition and make any clarifications (if necessary) to the students.
3. Follow up with a discussion to provide an apportunity for the students to relate what is the opportunity cost involved with the following examples:

   summer job - picking pineapples

   attending college

   eating hamburgers

   renting a home

4. Have students relate any examples of opportunity cost of their own and share them with members of the class.

5. Pass out the article handout, Pineapples, Bananas, Or Why the Young Keep Leaving Lanai by San Francisco Wall Street Journal writer, Kathryn Christensen (May '81) to each student. Inform them to read silently to themselves. (Allow 10-15 minutes.)

6. As soon as they appeared to be done reading the article, randomly select students to recall the major highlights of the article. Discuss the major ideas of the article with the class.

7. Instruct students to construct Gains and Losses columns on a sheet of paper. (Relate to them the fact that Castle and Cooke (C & C) now owns 98% of Lanai's 141 square miles and there is only one major industry, Pineapple Agriculture by C & C on the island.) Under each column, they are to list those things (people, businesses, etc.) which they feel are "benefiting" or "losing" from C & C's large ownership of the island with the present "sole" pineapple industry. Allow them 10 minutes.

C & C's Pineapple Industry on Lanai

Gains	vs.	Losses
1. existing (only) doctor		1. young keep leaving island
2. existing (only) dentist		2. "high" cost of living
3. C & C Industry		3. "poor" inter-island flight schedule
4. existing stores & banks		4. lack of qualitative medical services
5. "safe & quiet" atmosphere		5. shortage of housing
6. "heyday" of Hawaii's yesterday		6. "winding, narrow & pockmarked" roads

8. Construct Gains and Losses columns on the blackboard. When students have completed the assignment, randomly select students to share some of their viewpoints and record them under the respective columns on the blackboard. If possible, retrieve as many responses from the students. Discuss responses with the students.

9. Homework assignment: Hand out worksheet The Real Cost to each student. Inform them that they may either work singly or in pairs. Go over the directions with the students and make sure each student is aware of the worksheet's objectives and expectations. When the assignment is completed, each person or pair will deliver a presentation to the class.

"PINEAPPLES, BANANAS, OR WHY THE YOUNG KEEP LEAVING LANAI"

On Saturdays, when no 5 a.m. whistle blows to summon laborers to the pineapple fields, Secinardo Bueno and his Filipino friends gather at the two weathered picnic tables in the grassy town square. Sitting on cardboard mats to protect their clothing from the iron-red dirt baked into the tables, they spend the morning lazily sharing gossip, a half-pint of Seagram's and a can of 7-Up.

"This is the best place in the United States," says Mr. Bueno, a slight, silver-haired man who has lived on this island for more than half his 60 years. "It is the one place where life is safe and quiet. It does not change. Here we depend only on the ripening of the pineapple."

So it has been since 1922, when Jim Dole bought this hump of volcanic land for $1.1 million and transformed Lanai--described a century ago by a Mormon missionary as "a healed-up ulcer . . . an ancient punchbowl of molten earth"--into a huge pineapple plantation. Castle & Cooke Inc., the Honolulu-based company that sells pineapple under the Dole brand, now owns 98% of Lanai's 141 square miles, making the island the only inhabited one in the state still under single ownership.

Off the Tourist Track

While other Hawaiian islands swarm with jet-age tourists seeking sun-drenched, surf-slapped beaches, Lanai, with its steep and rough coastline, remains the picture of a plantation settlement. Pineapple fields, in red soil rich with iron and zinc, blanket one side of the island. On the other, windward side, hills of brush and scrubby grass slope down to a dense overgrowth of bushy kiawe trees. The two sides are separated by a ridge of transplanted Norfolk Island pines.

About half of the 2,100 residents still live in small, company-owned blue, green or pink wooden houses. The island's three paved roads are winding, narrow and deeply pockmarked, making premature relics of anything less sturdy than four-wheel-drive vehicles. Life revolves totally around the vast pineapple fields where the fruit is planted and picked by hand, and to call Lanai quiet is an understatement. But this seemingly serene ocean isle is rippling with worry: It is losing its children.

"We've been exporting two things off this island for years--pineapples and kids," says Duane Black. "Even when our children want to stay here, and many do, we can't offer them the jobs they want." Tomo Mitsunaga, who came to Lanai in 1925, agrees. "This island isn't like Hawaii, and if we were selfish we would keep it that way," he says. "But our number of young people is shrinking, and that is bad for all of us here."

If Lanai's total reliance upon pineapples is responsible for its pristine existance, that reliance is also sapping the island of its vitality. Each year, the average age of the resident work force, already in the 50's, grows another year older, Castle & Cooke says, and more seasonal workers must be imported.

Alarmed, Castle & Cooke and others on Lanai are resurrecting a plan shelved several years ago that calls for "low-density, high-class" resort and second-home development. They hope to provide jobs outside the pineapple fields without spoiling their pastoral island, but whether the plan will even be undertaken won't be clear for some time.

Meanwhile, it is obvious why Lanai's youths are fleeing to the military branches or to other islands where bright lights and tourists promise more excitement and easier money. "This is real plantation living; there is no outside influence," says Richard Pittsinger, administrator of the 14-bed

hospital owned and operated by the state. "Our young people have to leave; they go bananas if they stay here too long."

Moreover, teenagers here know how tedious the plantation jobs are. Many begin working part time in the fields at 15, and they abhor the prospect of picking fruit for the rest of their lives.

Harvesting of pineapples has changed little in the past 35 years. Laborers wade slowly through the dense, waist-high plants to handpick the fruit. They gently drop the prickly pineapples onto a conveyor belt that extends, like an arm, from a machine that rides atop a truck with a fruit bin. Despite the oppressive heat, the work gangs are heavily clothed to keep from being scratched mercilessly by the plants. Some wear floppy hats and wrap bandannas around their faces because of the dust. For eight hours, they plod through the thick fields to earn wages based on how many seven-ton bins they fill. An experienced picker working on a productive gang earns about $8.50 an hour.

During the peak harvest time of mid-June through August, the Lanai plantation will ship 15,000 to 17,000 tons of pineapples weekly by barge to Castle & Cooke's Honolulu cannery. More than 1,300 laborers will be in the fields, and at least 500 of those will be non-Lanai residents. The summer invasion of so many outsiders, who live in barracks scattered around town, disrupts island life very little. Most of the newcomers are members of organized groups and are prohibited from socializing with local residents who prefer it that way.

Already 120 high school boys from the mainland are here, recruited by a Salt Lake City firm that receives $100 for each worker it sends. The young men pay their own way to the island, work six months at the minimum wage plus incentives, and attend their own school at night. Most, including 17 year old Ron Wirick, came because "Hawaii sounded like a good place to spend six

months." Slumping with exhaustion after a day in the field, the young Californian says that the experience "is good for me, but this place sure isn't my idea of what a Hawaiian island would be."

For others, Lanai is one of the few remaining examples of what Hawaii once was. Reminders of the past are everywhere: a hilltop cemetery where unmarked wooden crosses protrude crookedly from rock piles; a rusted ship grounded on Shipwreck Reef on the island's uninhabited northeast side, ancient rock carvings, yet to be deciphered. At one time, during the heyday of missionary righteousness, Lanai was designated a colony for convicted adulteresses, a status that lasted only until a nearby island colony of adulterers built canoes to rescue the women.

Those Lanai residents who advocate bringing limited resort industry here contend that some vestiges of the past would endure and even revive. The dozen general stores that rim the town square would probably continue their midday habit of closing for an hour or so, they say, and perhaps someone would reopen the bowling alley or the movie theater. Maybe a veterinarian, a lawyer or an accountant would move to the island, too, eliminating the expense of traveling to Honolulu for such services. Nearly everyone takes some comfort in Castle & Cooke's almost total ownership of Lanai, suggesting that the big company is likely to protect the island from being overrun by sunburned tourists.

But the strongest argument for change is offered by school librarian Sylvia Mitsunaga, who asserts that Lanai can't afford to maintain its aloof isolation if the price is becoming a colony of senior citizens.

"For now, this looks very pretty and charming," she says as twilight envelops Lanai's enchanting beach. "But 20 years from now, then what? Where will we be then?"

Source: The Wall Street Journal, May 11, 1981. Article written by Kathryn Christensen, Staff Reporter of The Wall Street Journal.

Name _____

THE REAL COST

Directions: You may work on this assignment singly or in pairs. This assignment is due tomorrow. Presentation of your findings should be typed or legible. You will be allowed 3 minutes to present your findings to the class.

K. Christensen presented in her article Lanai's possible destiny (Senior Citizen's refuge) if another industry is not developed. One alternative or solution cited in the article is a proposed hotel-resort on the island's popular coastline, beach-front, Manele-Holupoe Bay area.

Objectives:

Develop a profitable industry which also considers these criteria:

a. Uses little or minimal water.
(Lanai's water reserves have capacity for 12,000 member population only.)

b. Can utilize or employ unskilled workers.

c. Does not drastically change or hamper the present lifestyle of the people of Lanai.

d. Explain the opportunity cost involved in your choice of industry in less than 350 words. (Also explain the possible "gains and losses" with the developed industry.)

GOOD LUCK!

ROAD TO THE AGE OF DISCOVERY

Introduction: All societies have to deal with the economic problem of scarcity. The allocation of a society's limited resources have an effect on the supply and demand of goods. This lesson gives the students practice in analyzing the "economic" motives behind historical events.

Time Required: 40-50 minutes.

Concepts and Skills: Scarcity, Supply, Demand and Predicting Changes on Supply-Demand Graph.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the term scarcity in relation to wants and available resources.

2. Predict changes in equilibrium price and quantity when given a change in a determinant of demand or supply.

Materials Required:

1. Review of Terms Handout.

2. Historical Worksheet. (Quotes taken from A History of Our American Republic, Glenn M. Linden, Laidlaw Brothers, 1979.)

Procedure:

1. Distribute "Review of Terms" handout to students. Discuss the terms on the handout with the class.

2. Divide the class into groups of three and have a person be the group leader and recorder.

3. Handout the "Historical Worksheet." Read the introduction and directions to the class.

4. Allow students 15-20 minutes to work in their groups.

5. After students have completed the worksheet, have each group recorder share their findings by drawing the original graph and the predicted changes in the graph on the chalkboard.

6. Discuss the answers with the class and review the terms scarcity and the determinants of supply and demand.

   Possible summary questions:

   a. Why were spices and precious metals in such high demand in Europe?
   b. Why were those commodities as well as other Asian luxuries so scarce in Europe during the Middle Ages?
   c. Explain how the scarcity of such wanted goods motivated individuals and nations to seek new solutions.
   d. List five technological advances that resulted from Europe's efforts to obtain scarce commodities.

Source of Activity: Adapted from a lesson plan by L. Kamaile Shultz, Mililani High School.

REVIEW OF TERMS

Scarcity: available economic resources are inadequate to satisfy all human wants.

Demand: the buyer side of the market; it reflects the ability and the willingness to buy something you want to have.

Supply: the seller side of the market; it reflects the willingness of sellers to sell.

Determinants: those things that affect the supply or demand of a good or service.

5 determinants of demand:

1. (Own) Price
2. Income of the community
3. Prices of other goods (substitutes and complements)
4. Tastes and preferences
5. Everything else

5 determinants of supply:

1. (Own) Price
2. Prices of input (factors of production, resources)
3. Availability of inputs
4. Technology
5. Everything else

HISTORICAL WORKSHEET

Introduction: This lesson is to give you the opportunity to apply the economic concepts you've learned to the historic events just prior to the "Age of Discovery" when, due to scarcities of spices and precious metals, European nations embarked upon great voyages of exploration. You will be asked to draw conclusions about how economic needs provide a motivating factor in history.

Procedure:

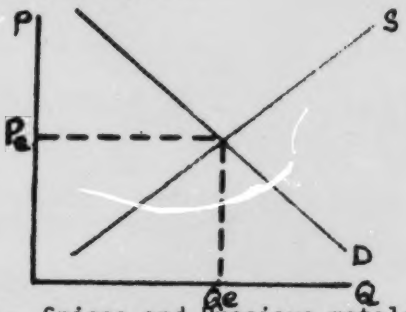
1. Read the following paragraphs and draw the effect it would have on the demand and supply curve.

2. Identify the determinant of the change. Remember that you must first decide whether the paragraph indicates a change in the supply curve or the demand curve or both.

3. Determine whether there would be an increase or a decrease in the Equilibrium Price and the Equilibrium Quantity.

A. The manufacture of European goods.

"Between 1000 and 1300 the Crusades - a series of holy wars - were fought in the Middle East. Crusaders returning to Europe brought goods from the Middle East back with them. In this way the Crusades helped to revive trade in Western Europe, which had greatly decreased during the Middle Ages. With the growth of trade, agriculture and the manufacture of handmade goods also increased."



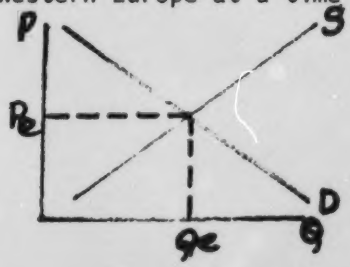
Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

B. Spices and Precious metals.

"... when the Turks gained control of the Middle East in the 1400's, they blocked many of the land routes over which these goods were transported. As a result, goods - such as spices and precious metals - from Asia dwindled in Western Europe at a time when the demand for these items was increasing."



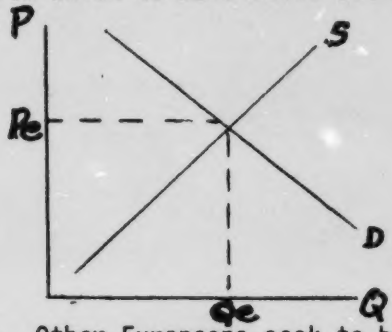
Determinant _____

Effect on Equilibrium P _____

Effect on Equilibrium Q _____

C. Precious metals needed.

"With the growth of trade and commerce in Western Europe, more and more coins were needed for financial transactions. Demand for precious metals from which to make coins out-stripped the mine supplies in Western Europe."



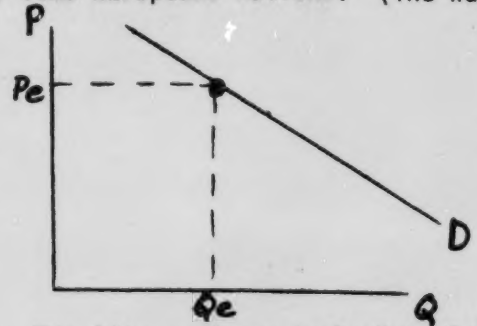
Determinant_____

Effect on Equilibrium P_____

Effect on Equilibrium Q_____

D. Other Europeans seek to break the Italian Monopoly (on spices, etc.).

"Other Europeans resented the Italian monopoly (a market where there is only one seller who is free to set any price and produce any quantity that is desired) on transporting goods from the Middle East. As a result, in the late 1400's voyages to search for a water route to China were sponsored by some Europeans nations. (The water route was found.)"



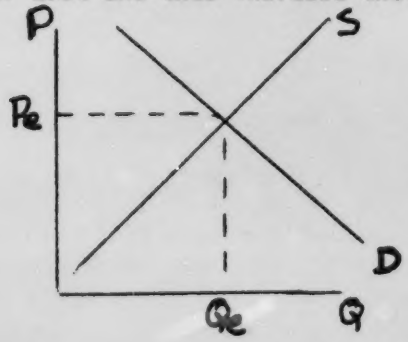
Determinant_____

Effect on Equilibrium P_____

Effect on Equilibrium Q_____

E. New ideas and new technology lead to more trade (spices, etc.).

"Once kings and merchants in other European countries understood that better ships, more accurate instruments, and improved maps made longer voyages possible, they too began to sponsor voyages of exploration. Their goal was not mainly to find new lands, but rather to find a sea route to the Far East and thus increase their wealth through trade with this area (Asia).



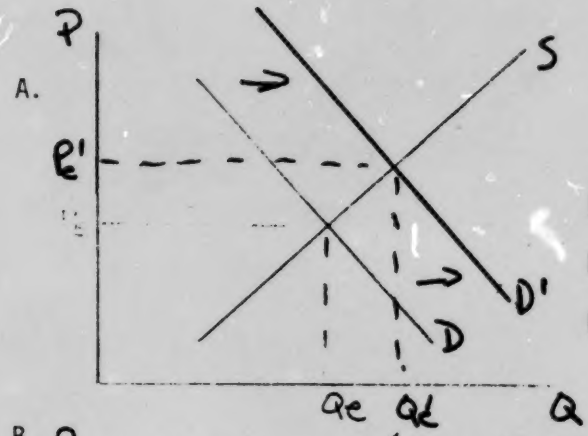
Determinant_____

Effect on Equilibrium P_____

Effect on Equilibrium Q_____

ANSWERS TO HISTORICAL WORKSHEET

A.

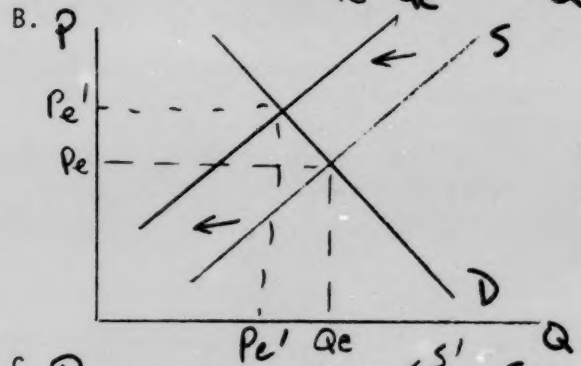


Determinant Introduction of spices, crusades

Effect on Equilibrium P Higher

Effect on Equilibrium Q Higher

B.

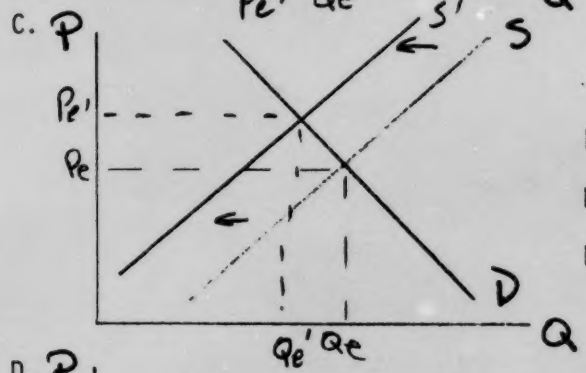


Determinant Turks cut of trade routes in Middle East

Effect on Equilibrium P Higher

Effect on Equilibrium Q Lower

C.

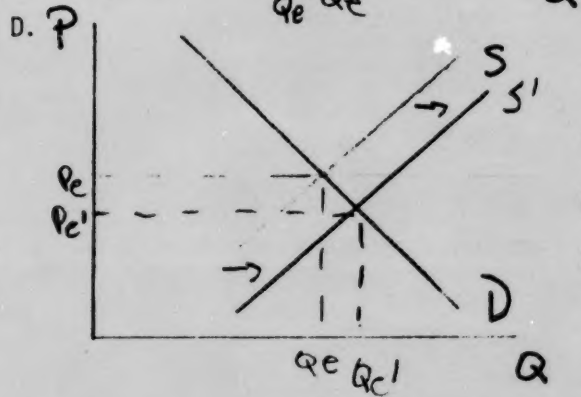


Determinant Italians monopolize Asian trade

Effect on Equilibrium P Higher

Effect on Equilibrium Q Lower

D.

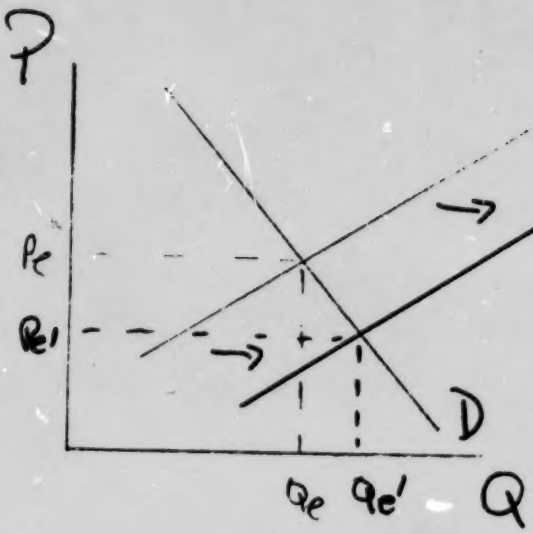


Determinant New water routes to Asia

Effect on Equilibrium P Lower

Effect on Equilibrium Q Higher

E.



Determinant Technological advances

Effect on Equilibrium P Lower

Effect on Equilibrium Q Higher

ANYBODY FOR MONOPOLY?

Introduction: Monopoly (single firm industry) can be identified as an industry having no close substitutes, being a price maker, blocking entry of new firms, and engaging in goodwill advertising. A monopoly has effects on price and output by maintaining control over supply to keep out price-cutting competitors and trying to increase demand. This lesson introduces the concepts of monopoly and competitive markets and helps the students to differentiate the two market models.

Time Required: 60 minutes.

Concepts: Monopoly, Competitive Markets.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define "monopoly", and "competitive market."
2. List the characteristics of a monopoly and a competitive market.
3. Differentiate between examples of monopoly and competitive market.
4. Apply the conceptual terms of monopoly and competitive market to new examples.

Materials Required:

1. Monopolistic/Competitive Situations Worksheet.
2. Models of Market Structures Handout.
3. A Case Study: Fort Harrison Worksheet.

Procedure:

1. On the chalkboard define the terms "monopoly" and "competitive market" as follows:

   MONOPOLY - A market where there is only one seller; price setter.

   COMPETITIVE MARKET - A market where there are large numbers of buyers and sellers; price-takers (accepts the price that the market gives.)

2. Next to the definitions of monopoly and competitive market, list the characteristics of each market model as follows:

   MONOPOLY - (1) one seller, (2) no close substitutes, (3) entry to market restricted, (4) price-setter.

COMPETITIVE MARKET - (1) many buyers and sellers, (2) varied products, (3) unrestricted entry to market, (4) price taker.

3. For reinforcement, distribute sheet on monopoly/competitive situations asking each student to label each situation as monopolistic or competitive and indicate which of the defining attributes they listed in step 1 are present.

4. Ask students to speculate about conditions giving rise to monopoly or competitive markets and conditions which result from monopoly or competitive markets.

5. Drawing upon given attributes and student ideas, create models representing a monopoly market and competitive market. Discuss these models with the class. (See examples below.)

6. Have students create and share with their class examples of monopoly and competitive markets in their locality, justifying their categorizations.

7. Distribute the Fort Harrison case study, asking students to find instances of monopoly and competitive markets.

8. Students frequently believe that all monopolies are the result of conspiratorial business practices. Ask them what incidents of monopoly in Fort Harrison probably resulted from such conspiracies and what incidents did not. Ask students to describe monopolies which were not a result of conspiracy. (Students should observe that government may encourage monopolies in utilities or in mass transportation, for example. It should also be noted that monopolies may occur naturally when the market might not support more than one efficient supplier or services -- i.e., only one veterinarian in a lightly populated area.)

9. Ask students to identify the probable source of monopoly power in the events identified in steps 2 or 5.

10. In preparation for a future lesson, ask students to determine whether they see advantages or disadvantages for the consumer in a monopolistic situation.

Source of this Activity: This activity developed by D. Fell and E. Melvin for Teaching Social Studies Methods With Economics, Purdue University Center of Economic Education, Dennis Weidenaar, Director, 1981. Used with permission.

Monopolistic/Competitive Situations

Directions: Write the word 'monopolistic' or 'competitive' in the blank to the left of each item, depending on the nature of the given situation.

_____ 1. Snyders' has the exclusive franchise to market Tuzuki motorcycles in this country.

_____ 2. Sageway begins giving trading stamps in an attempt to try to encourage more customers to shop there.

_____ 3. Only one airline has direct flights from Pittsburgh to Cleveland.

_____ 4. When shoppers go to the store for coffee, they can't decide which brand to buy.

_____ 5. Dr. Hartwell is the only veterinarian in the area.

_____ 6. A manufacturing company discovers that one supplier controls the bauxite needed for production of its best selling aluminum product.

_____ 7. Fidelity Bank institutes longer hours and adds a drive-in window to attract more customers.

_____ 8. When Mrs. Brown decides to buy a new color television, she finds that three stores carry the brand and model she would like.

_____ 9. Only one dealer in a hundred-mile radius sells a particular make of foreign car.

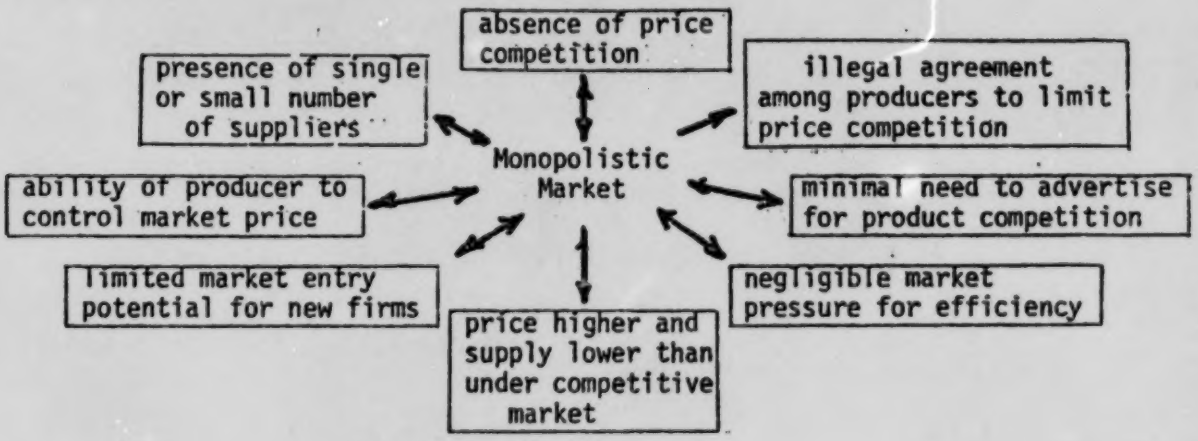
_____ 10. Three colleges and universities in a state offer majors in drama, but only one offers a major in chemical engineering.

_____ 11. The city's eight gas stations all sell regular gas at the same price.

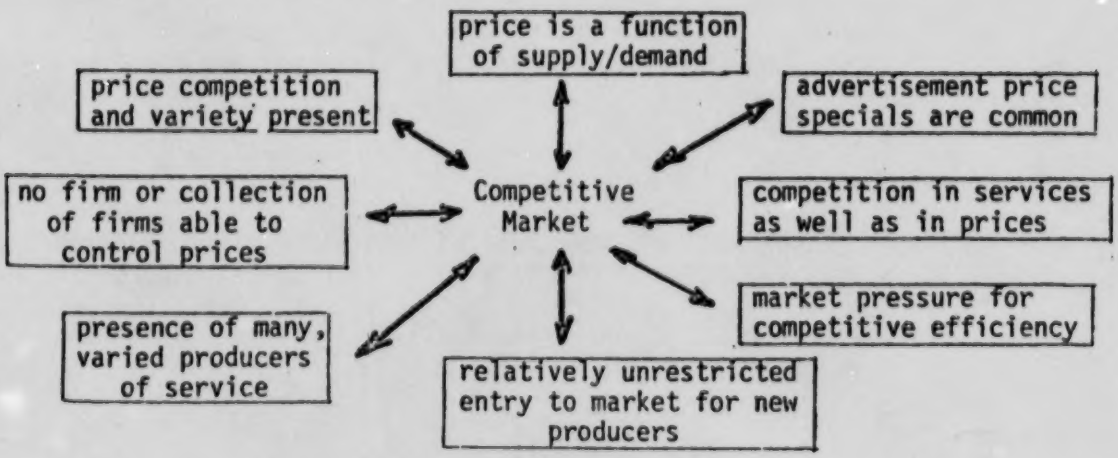
_____ 12. Howard's Market runs two-page ads weekly, featuring low prices and coupon specials.

MODELS OF MARKET STRUCTURES

Example A: Monopolistic Market


absence of price competition
presence of single or small number of suppliers
illegal agreement among producers to limit price competition
Monopolistic Market
ability of producer to control market price
minimal need to advertise for product competition
limited market entry potential for new firms
negligible market pressure for efficiency
price higher and supply lower than under competitive market

Example B: Competitive Market


price is a function of supply/demand
price competition and variety present
advertisement price specials are common
no firm or collection of firms able to control prices
Competitive Market
competition in services as well as in prices
market pressure for competitive efficiency
presence of many, varied producers of service
relatively unrestricted entry to market for new producers

A Case Study: Fort Harrison

Although not a metropolis, Fort Harrison is far from being a one-horse town. In addition to the public high school, there are two private high schools: one Catholic, and one Lutheran. The city even has two television stations and two daily newspapers, although both newspapers are owned by the same family. City residents obtain electricity from a city-owned plant; moreover, there is service from one water company and one phone company in the locality. The city's main traffic artery is dotted with fast food chains, gas stations, and taverns. In fact, residents point with ironic pride to the fact that there is an equal number of bars and churches in the town. The city's residents also point with pride to Harrison Memorial, the only hospital in a forty-mile radius, and to the fact that their hospital staff includes the only cardiologist and allergist in this part of the state. With the presence of the hospital, the area has an unusually high number of general practitioners and family practice specialists for a town of its size, unlike nearby Greenville which has been seeking a local doctor for three years. City gourmets also savor the delicacies from "Au Petit Paris," the only authentic French restaurant in the state. Weekends, cars from as far away as three hundred miles can be seen in the restaurant's parking lot. Yet, townspeople agree, Fort Harrison is a pretty good place if people come that far just to eat a meal.

WORKSHEET

Categorize the following industries according to whether they should be labeled pure competition, monopolistic competition, oligopoly, or pure monopoly:

1. Autos

2. Telephone Service

3. Razor Blades

4. Chocolate Candy

5. Detergents

6. Women's Clothes

7. Commercial Printing

8. Petroleum Refining

9. Tires and Tubes

10. Restaurants

PLEASANTVILLE

Introduction: Many economic actions affect people who are not directly involved in those actions. These effects are called external costs and external benefits. Pollution destroying fishing grounds is an example of external cost for people who engage in fishing. External benefits might result when a vacant lot is converted into a mini-park. Even people not involved in the use of the park might gain a benefit from increased land values. External costs and benefits are faced whenever people live in groups, therefore, this lesson can be integrated into a unit of study in which people are faced with making decisions about the use of their environment.

This simulation is an activity in which secondary students analyze and evaluate a problem by playing the roles of community leaders, concerned citizens and other members of the community. The activity requires the students to make decisions related to external costs.

Time Required: 60 minutes.

Concepts:

1. Social or external cost.
2. Social or external benefit.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define and give examples of social costs.
2. Define and give examples of social benefits.

Materials Required:

1. A 24" x 36" enlargement of the map of Pleasantville or overhead transparency of the map.

2. Fact sheet on the background of Pleasantville.

Procedure:

1. Explain to the class that they will be assuming roles of community leaders, concerned citizens and other members of the community of Pleasantville and will be making decisions about problems in this city.

2. Introduce the concept of external costs (See Introduction).

3. Have students read backgound information on Pleasantville. This information can be displayed through either an overhead transparency or dittoed student copies. (See Background Information.)

4. Show students the map of Pleasantville by:

   a) Posting the enlarged map of Pleasantville at the front of the room.
   b) Displaying the map through an overhead projection or
   c) Distributing dittoed copies of the map.

5. After the class has read the background information and studied the map of Pleasantville, the teacher identifies six groups of students who will represent each of the interest groups.

6. Let students meet in their groups for fifteen (15) minutes to organize their thinking in order to develop a statement of support or action(s) deemed desirable for their interest group.

7. Tell city council members that they should become familiar with the problem and that they are responsible for conducting the town meeting. This involves the physical layout of the meeting such as chair arrangements, a table for the council, keeping order, allowing equal speaking opportunities for all groups, etc.

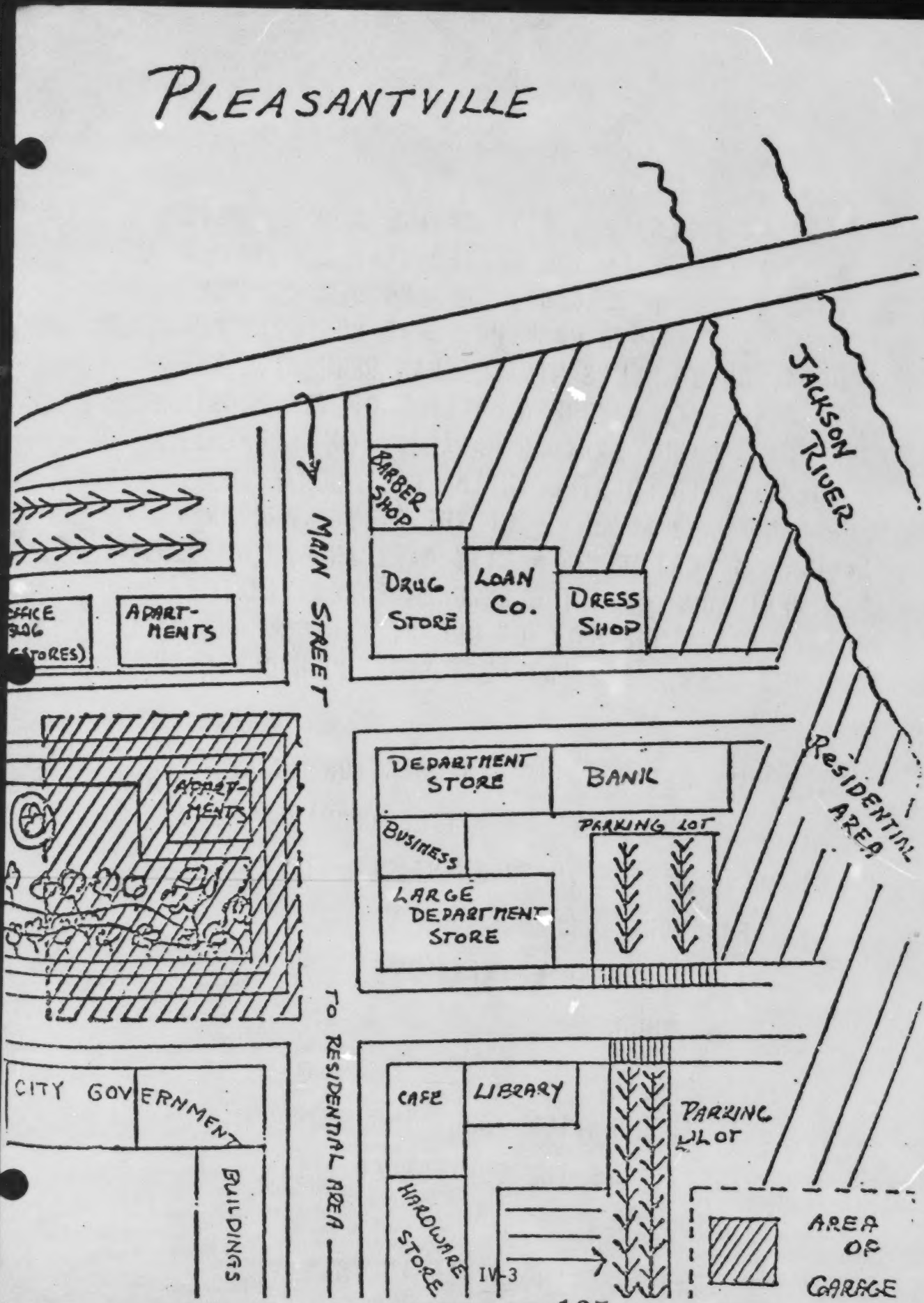
8. After groups have worked together for fifteen (15) minutes, tell the city council to call the town meeting to order.

9. Approximately fifteen minutes before the end of the class period ask the city council to confer for five (5) minutes and render their decision on the problem.

10. Approximately ten (10) minutes before the end of the class period have students discuss the following:

    a) Do you think the city council made a fair decision? Why or why not?
    b) Which interest group was the most influential? Why?
    c) Which group will suffer the greatest external costs? Which group will receive the greatest external benefits? (Note: External costs and benefits should accrue to people other than those who influenced the actual decision. For example, what groups opposed to the final plan will still benefit?)
    d) Identify several examples of external costs and external benefits accruing from actions undertaken in the local community or state.

Source of Activity: Adapted from lesson 13 of In the Marketplace, State Department of Education, Olympia Washington, 1978, pp 117-122. Used with permission.


PLEASANTVILLE
JACKSON RIVER
MAIN STREET
BARBER SHOP
DRUG STORE
LOAN CO.
DRESS SHOP
APART-MENTS
DEPARTMENT STORE
BANK
BUSINESS
LARGE DEPARTMENT STORE
PARKING LOT
RESIDENTIAL AREA
TO RESIDENTIAL AREA
CITY GOVERNMENT BUILDINGS
CAFE
LIBRARY
HARDWARE STORE
PARKING LOT
AREA OF GARAGE
IV-3

BACKGROUND INFORMATION

PLEASANTVILLE IS A CITY ON THE JACKSON RIVER, LOCATED ANYWHERE IN THE UNITED STATES. POPULATION IS 75,000 AND INCREASING, CAUSING DEMANDS FOR ADDITIONAL DOWNTOWN PARKING. THE BUSINESS PERSONS' ASSOCIATION OF PLEASANTVILLE HAS REQUESTED THE CITY COUNCIL TO REZONE A SECTION OF THE DOWNTOWN AREA FOR A LARGE PARKING GARAGE. THE PROPERTY IN QUESTION IS LOCATED IN THE CITY CENTER ON A FOUR-LANE MAIN ARTERY OF THE CITY. PROPERTY INCLUDES A PORTION OF A CITY PARK AND A LOW RENT APARTMENT COMPLEX. THE REZONE REQUEST IS FOR APPROXIMATELY ONE-HALF OF ONE CITY BLOCK AND WILL PARK 400 CARS. THE INTEREST GROUPS INVOLVED IN THIS PROPOSAL ARE:

A) BUSINESS PERSONS' ASSOCIATION (BPA)

B) SAVE OUR PARKS COMMITTEE (SOP)

C) CITY STREET IMPROVEMENT COMMITTEE

D) APARTMENT DWELLERS

E) CITY PLANNING COMMISSION

F. CITY COUNCIL

ADDITIONAL INFORMATION ABOUT THE PROBLEM:

A) THE PARK IS THE ONLY GREEN BELT IN THE AREA.

B) PRESENT PARKING SPACE IN THIS AREA

PUBLIC GOOD

Introduction: There are times when the government must become involved in market activities such as supplying goods and services, setting prices, and making production and distribution decisions. This is often the case with "public goods." A public good is a good or service whose consumption by one person does not exclude consumption by others. The concept of public good is closely related to external costs -- a third party receives benefits. This lesson is designed to introduce the concept of public good to the students.

Time Required: 30 minutes.

Concept: Public Good.

Instructional Objective: At the end of the activity, students will be able to:

1. Define term "public good."
2. Distinguish (identify) between examples and non-examples of public goods.

Material Required:

1. Public Goods Worksheet.

Procedure:

1. Introduce the term "public good" to the class by writing the definition on the chalkboard as follows:

   PUBLIC GOOD - A good or service whose consumption by one person does not exclude consumption by others.

2. List some examples and non-examples of public goods on the chalkboard, e.g.

candy bar	-	non-example
sunset	-	example
lighthouse	-	example
television reception	-	example
national defense	-	example
'Big Mac'	-	non-example

3. Hand out Worksheet "Public Goods."
4. Instruct students to read the worksheet and to complete the answers. (Allow 10 minutes)

5. After students have completed the worksheet, go over the answers with the class. Answers are:

1.	A copy of Newsweek	- non-example
2.	A Harvard University Education	- non-example
3.	A University of Hawaii Education	- non-example
4.	The Pacific Ocean	- example
5.	A candied apple at the Punahou Carnival	- non-example
6.	A seat at the 4th of July fireworks show at Aloha Stadium	- non-example
7.	A Chevrolet	- non-example
8.	Smoke pollution from a steel mill	- non-example (not a good)
9.	A painting in a museum	- example
10.	Police protection	- example

6. Ask students if examples correlate to the definition of public good; if not, why doesn't it fit the description?

7. For review discuss with the class the definition of a public good and the benefit of public goods in relation to the cost of goods and services.

Source of Activity: This activity developed by Gail Tamaribuchi, King Intermediate School.

Public Goods

Which of the following are examples of public goods. Explain each of your answers with a sentence or two.

1. A copy of Newsweek

2. A Harvard University education

3. A University of Hawaii education

4. The Pacific Ocean

5. A candied apple at the Punahou Carnival

6. A seat at the 4th of July fireworks show at Aloha Stadium

7. A Chevrolet

8. Smoke pollution from a steel mill

9. A painting in a museum

10. Police protection

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8. Smoke pollution from a steel mill

9. A painting in a museum

10. Police Protection

ECONOMIC GOALS

Introduction: This lesson is designed to encourage secondary students to identify the important outcomes expected from our economic system. In the end, the students should be prepared to stipulate what economic goals are the most important to them and why. In addition to gaining insights into their own values about our economic system, they will explore more closely society's economic goals and become aware of the difficulties involved in achieving these goals in a pluralistic society.

Time Required: 45 minutes.

Concept: Economic Goals.

Instructional Objectives: The students will demonstrate their understanding of the difficulties of systematic economic goal-setting in a pluralistic society by:

1. Identifying the goals they believe their economic system should achieve.
2. Observing the relationship between specific goals and abstract, generalized goals.
3. Identifying the conflicts and trade-offs involved in achieving multiple economic goals.
4. Analyzing the values underlying each economic goal.
5. Ordering economic goals according to their own beliefs and values.

Materials Required:

1. Chalk and chalkboard (or overhead projector, transparency, and pen).
2. Teacher background material (concepts for evaluating economic actions and policies).

Procedure:

1. Ask the students to suggest in their own words what they want the economic system to achieve. As these goals are suggested, write them on the chalkboard or overhead projector. After 10-20 have been suggested, review them to identify goals which are basically the same and rewrite them as a single goal. Identify those student suggested goals which are really not goals, but means to achieving unspecified goals. For example, a student might suggest "lower taxes" as a goal. In reality, he/she may mean larger disposable income or a higher standard or living; he/she may mean more economic freedom with a smaller role for government.

2. Now list the following five goals and their definitions on the chalkboard or overhead:

   a) Economic growth--an increasing standard of living

   b) Economic security--protection from physical and economic hazards

   c) Economic freedom--the right to make unconstrained decisions as producers and consumers

   d) Economic justice--freedom from discrimination in economic activities

   e) Economic stability--full employment without inflation

3. You may wish to add economic efficiency or some other goal to this list, e.g., an acceptable environment. Examine the goals listed by the students, and have them list each goal under one of these broad goals. In almost every case, the student suggested goals will be a subset of one of the abstract goals defined above.

4. Ask the students to rank order the goals according to their own values and beliefs on a sheet of paper.

5. Ask the students to identify examples of how attempts to achieve a specified goal (e.g., social legislation, minimum wage laws, etc.) come into conflict with other economic goals.

Source of Activity: Adapted from Weidenaar and Weiler, Economics: An Introduction to the World Around You, Addison-Wesley Publishing Co., Inc., 1976. Used with permission.

ECONOMIC POLICIES, GOALS CONFLICT AND TRADE-OFFS

Introduction: This lesson is designed to teach students the important lesson that when government action is taken to promote one desirable goal, it is often found to come into conflict with another desirable goal.

Time Required: Two 45-minute periods.

Concepts: Economic Goals, Trade-Offs.

Instructional Objectives: Given a list of government actions and desirable economic goals the student will be able to demonstrate his/her understanding of the conflicting results of these actions by:

1. Identifying which desired goal is enhanced and at the same time which desired goal is hindered.

2. Observing that quite often more than two goals are affected.

3. Observing that when government policies are formulated difficult trade-offs must be made.

Materials Required:

1. List of broad goals (these come from A Framework for Teaching Economics: Basic Concepts, Part I, Joint Council on Economic Education, pp. 25-26, Blue Booklet).

2. Worksheet: "Conflicting Goals."

Procedure:

First Day:

1. Pass out list of broad goals. After students have read this, go over the meaning of the goals.

2. Add to the list Environmental Needs and Health & Safety.

3. Have students form small groups of three students each.

4. Pass out worksheet, "Conflicting Goals."

5. Go over the example given on social security.

6. Have groups start on worksheet.

Second Day:

1. Students continue working on worksheet until they are finished. Students should be able to explain their answers.

2. Each group picks a spokesperson.

3. The teacher goes through the list of the various governmental actions, each time calling on a different group.

4. Answers may vary, and the students may have some difficulty completing the worksheet, thus the teacher should explain again the meaning of these goals. Almost all, if not all, of the actions affect the goals of economic freedom and growth.

Conclusion: It should be pointed out to students that it is not a matter of whether an action taken is good or bad, what is important is weighing the consequences of actions taken. It is always important to examine the costs and the benefits.

Therefore at the end of this activity the student should understand the costs/benefits ratio approach to economic thinking.

Source of Activity: Adapted from lesson plan by Shoshana Herzig, Moanalua High School.

CONCEPTS FOR EVALUATING ECONOMIC ACTIONS AND POLICIES

Broad Social Goals

The heart of economics is decision-making--choosing among alternatives. Economic decisions are not made in a vacuum. Rather, they are made in the light of a set of goals. These goals vary from one society to another, and they vary among groups and individuals within societies. The goals evident in the modern world, and particularly in American society are: freedom, economic efficiency, equity, security, stability (full employment and the absence of inflation), and growth.

These goals or criteria provide means for evaluating the performance of economic systems and parts of them, as well as the desirability of existing programs and newly proposed policies.

1. Freedom

Economic freedoms are those of the marketplace--the freedom of consumers to decide how they wish to allocate their spending among various goods and services, the freedom of workers to choose to change their job, to join a union, and to go on strike, the freedom to establish a business and to decide what to produce and when to change the pattern of production, the freedom of savers and investors to decide how much to save and where to invest their savings.

Economists are concerned about the freedom of individuals and groups, especially insofar as particular actions open up or restrict freedom in the market place and affect the other goals of economic efficiency, equity, stability, growth, and security. Some argue that more governmental regulation limits the freedom of people to make individual choices. At the same time, however, such policies may free other people to take greater advantage of the opportunities provided in a market economy. In short, it is essential to define the kinds of freedom under discussion and whose behavior is most likely to be affected.

2. Economic Efficiency

There are several dimensions to efficiency. The first is technical efficiency which concerns using the least amount of resource inputs to obtain a given output, or obtaining the largest output with a given amount of resource input. This does not necessarily indicate the most appropriate choice, however, because it fails to consider the different costs of various inputs or the different benefits of various outputs. Economic efficiency goes beyond technical efficiency and considers the total costs and total benefits of various decisions. Economic efficiency means getting the most out of available resources. Actions should be undertaken if the benefits exceed the costs; they should not be undertaken if the costs exceed the benefits. The concept of economic efficiency is central in economics, and it should receive heavy emphasis in both individual and social decision-making.

3. Equity

Equity is an elusive concept. There is little agreement on what is

equitable; people differ in their conception of what represents equity or fairness. In evaluating economic performance, the concept serves as a reminder to investigate who or what kinds of people are made better or worse off as a result, for example, of a change in prices or the implementation of a new government program. Though two actions might appear to be equally efficient from an economic standpoint, one might, for example, benefit the rich and another the poor, one might benefit consumers and another producers, and so on. Many people would not be indifferent as to the results, since they harbor some concept of what is more or less equitable. Ultimately, the concept of equity manifests itself in the distribution of income and wealth. A more neutral way of dealing with this concept is simply to talk about the income distribution effects of economic actions: Who gains and who loses?

4. Full Employment

Full employment means that all of an economy's resources are fully utilized. In practice, an unemployment rate which reflects normal frictional unemployment has come to be viewed as the operational measure of full employment, with continuing debate as to what rate in the 3-5 percent range is indicative of full employment. The goal of full employment recognizes the heavy costs in lost output that accompany higher rates of unemployment, as well as the costs to individuals through economic hardship.

5. Price Stability

Price stability--the absence of inflation--is also a goal. While reasonable price stability might involve an upward creep of prices (perhaps 2 percent per year) substantial rates of increase often require individuals and businesses to make costly adjustments to offset the effects of rising prices.

6. Security

The goal of economic security concerns the desire of people for protection against economic risks, such as unemployment, destitution in old age, business failures, bank failures, and precipitous price declines for one's product. The desire for security has led to a variety of public programs and policies including unemployment compensation, social security, federal bank deposit insurance, farm price supports, and FHA-guaranteed housing loans. Economic security also results from private efforts, such as saving and insurance purchases, as well as from the growth of the economy which provides the mass of the people with more material wealth. Nations also engage in the quest for economic security by seeking through international agreements to assure themselves of access to key resources (e.g., the Soviet-American grain agreement) or of adequate prices for their exports (e.g., international tin agreement).

7. Growth

"What effect will this policy or program have on economic growth?" is a frequently asked question. Though this criterion is most frequently discussed in thinking about a nation's economic growth, individuals and firms

also take account of how their actions and those of others will affect their own future economic well-being, as reflected in higher incomes and increased profits. Growth is a long-run goal, to be thought of in years and decades. Whereas growth has typically been viewed as producing a broad range of benefits, attention has recently been called to the various costs that accompany economic growth. Consequently, growth is a less universally accepted goal today than it was a decade ago.

8. Other Goals: Environmental Needs, Health & Safety

At times there are other goals important in the consideration of specific problems or questions. This listing simply reminds readers that they should consider other possible goals that fit the issue.

Source: Adapted from A Framework for Teaching Economics: Basic Concepts, Part I, Joint Council on Economic Education, pp. 25-26, Blue Booklet.

CONFLICTING GOALS

Action Taken	Goal Helped	Goal Hindered
Example: Increase in social security benefits.	Security	Price Stability. (Social security is a major spending item in the federal budget contributing to past budget deficits. Budget deficits are generally considered to be a major cause of inflation.)
1. Increase in minimum wage.		
2. Tariffs on imports.		
3. Wage and price controls.		
4. Affirmative action.		
5. Farm price supports.		
6. Increased unemployment compensation.		
7. Pollution control laws.		
8. Increased welfare payments.		
9. Consumer protection laws.		

ANSWERS

(other answers possible)

Action Taken	Goal Helped	Goal Hindered
1. Increase in minimum wage.	Equity (greater fairness in pay)	1. Full Employment (fewer unskilled workers hired, machines replace workers). 2. Price Stability (prices rise to cover labor costs). 3. Freedom (employer cannot pay what he/she wishes).
2. Tariffs on imports.	Full Employment	1. Price Stability (prices go up on imported products; prices stay high on domestic products). 2. Economic Efficiency (reduced competition reduces quality, and relieves the pressure to get more output for given inputs).
3. Wage and price controls.	Price Stability (in the short-run)	1. Price stability in the long-run. 2. Freedom.
4. Affirmative action programs for hiring employees.	Equity	1. Economic Efficiency (since some workers hired are not necessarily hired on merit alone). 2. Freedom.
5. Farm price supports.	Security	1. Price Stability.
6. Increased unemployment compensation.	Security	1. Full Employment (the more money paid for not working the less the incentive to find and accept jobs).

ANSWERS
(continued)

Action Taken	Goal Helped	Goal Hindered
7. Pollution control laws.	Environmental needs	1. Price Stability (controls add to the cost of products). 2. Economic Efficiency (more resources used as inputs for the same output in the production process).
8. Increased welfare payments.	Equity, Security	1. Price Stability (adds to budget deficits - see social security example). 2. Full-Employment (see #6).
9. Consumer protection laws.	Health & Safety	Same as pollution controls.

PRODUCTIVITY

Introduction: Productivity is the ratio of output to input. Another simpler way of saying this is, what you get out for what you put in. The inputs of production, or the factors of production are land, labor, and capital. Thus, if one company can put out more widgets per man-hour than another company, that company has a higher labor productivity. If one company can produce more widgets per dollar than another company, then that company has a higher total productivity.

Productivity should not be confused with production. Production is how many widgets a company produces, what its output is. Productivity is what is its output compared to its input, that is, output per machine-hour, man-hour, or per dollar.

Time Required: 50 minutes.

Concepts: Productivity.

Instructional Objectives: The student will be able to:

1. Define productivity.
2. Compute labor productivity.
3. Compute total productivity.

Materials Required:

1. Worksheet: "Productivity."

Procedure:

1. Explain the productivity ratio: $\frac{(\text{output})}{(\text{input})}$.
2. Explain the difference between productivity and production.
3. Show how labor productivity is computed.

   Example:

   Output: 1000 widgets
   Input: 200 man-hours

   $$\frac{\text{output}}{\text{input}} = \frac{1000}{200} = 5 \text{ widgets/per man-hour}$$

4. Show how total productivity is outputed.

   Example:

   Output: 1000 widgets

Inputs: 30 lbs. of copper at $20 a lb.
40 machine-hours at $10 an hour
200 man-hours at $5 an hour

Output: 1000 widgets
Inputs: Raw material: 30 x $20 = $600
Machine cost: 40 x $10 = $400
Labor costs: 200 x $5 = $1,000
Total = $2,000

$$\frac{\text{Output}}{\text{Input}} = \frac{\text{1000 widgets}}{\$2000} = \text{1/2 widget/\$1.00}$$

Source of Activity: Adapted from lesson plan by Shoshana Herzig, Moanalua High School.

PRODUCTIVITY WORKSHEET

	COMPANY X	COMPANY Y
Outputs:	4000 widgets per week	12,000 widgets per week
Inputs:	1 ton metal at $680/ton	4 tons plastic at $500/ton
	80 machine-hours at $9/hour	400 machine-hours at $10/hour
	400 man-hours at $4/hour	800 man-hours at $2.50/hour

Questions:

1. What is the labor productivity for company X and Y?

2. What is the total productivity for company X and Y?

3. Which company is more efficient?

4. If 6 men make 24 widgets in one eight hour day, then their labor productivity is _____.

5. If 3 men make 18 widgets in 6 hours, then their labor productivity is _____.

ANSWERS TO PRODUCTIVITY WORKSHEET

1. Labor productivity for:

$$\text{company x} = \frac{4000}{400} = 10 \text{ widgets/man-hour}$$

$$\text{company y} = \frac{12,000}{8000} = 15 \text{ widgets/man-hour}$$

2. Total productivity for:

$$\text{company X} = \frac{4000}{680 + 720 + 1600}$$

$$= \frac{4000}{3000} = 1\ 1/3 \text{ widgets/\$1.00}$$

$$\text{company Y} = \frac{12,000}{2000 + 4000 + 2000}$$

$$= \frac{12,000}{8,000} = 1\ 1/2 \text{ widgets/\$1.00}$$

3. More efficient -- company Y.

4. $\frac{24}{6 \times 8} = \frac{24}{48} = 1/2$ widget/man-hour

5. $\frac{18}{3 \times 6} = \frac{18}{18} = 1$ widget/man-hour

THE CPI AND CORRECTING INCOME FOR INFLATION

Introduction: The Consumer Price Index (CPI) measures price changes of goods and services purchased by the average urban family. Another way of looking at this, is to say that the CPI measures the purchasing power of urban consumers. Thus it is important to distinguish between current income and real income. Current income is the actual number of dollars that a person receives. If the base year is 1972, and you convert current income to real income, you will know how many 1972 dollars you now earn.

Time Required: 50 minutes.

Concepts: Price level changes.

Instructional Objectives: The student will be able to:

1. Define CPI.
2. Distinguish between current income and real income.
3. Convert current income into real income (often called income in constant dollars).

Materials Required:

1. Worksheet: "Converting to Real Income."

Procedure:

1. Explain the meaning of the terms CPI, current income, real income, purchasing power, and base year.
2. Using the proportion shown on the worksheet have the students complete the chart.
3. Answer the question at the bottom of the worksheet. Was he/she financially better or worse off in 1980, 1981, 1982?

Source of Activity: Adapted from lesson plan by Shoshana Herzig, Moanalua High School.

CONVERT TO REAL INCOME

Year	Income (in current dollars)	CPI (1972 = 100)	Real Income
1972	$12,000	100	$12,000
1976	$16,000	136	$11,765
1980	$25,000	201	?
1981	$26,000	216	?
1982	$27,000	*230	?

$$\frac{\text{Income in Current Dollars}}{\text{Current CPI}} = \frac{\text{Real Income}}{\text{Base Year CPI}}$$

The following proportion shows how the real income was determined for 1976.

$$\frac{16,000}{136} = \frac{N}{100}$$

$$136N = 1,600,000$$

$$N = \frac{1,600,000}{36}$$

$$N = \$11,765$$

Based on the data above, the person was worse off financially in 1976, since in terms of 1972 dollars he/she could only buy $11,765 worth of goods; whereas in 1972, he/she could buy $12,000 worth of goods. Was he/she financially better or worse off in 1980? In 1981? In 1982?

* This is the estimated CPI for 1982.

ANSWERS

1980

$$\frac{25,000}{201} = \frac{N}{100}$$

$$201N = 2,500,000$$

$$N = \frac{2,500,000}{201}$$

$$N = \$12,438$$

In 1980, he/she had $12,438 - 1972 dollars.

1981

$$\frac{26,000}{216} = \frac{N}{100}$$

$$216N = 2,600,000$$

$$N = \frac{2,600,000}{216}$$

$$N = \$12,037$$

In 1981, he/she had $12,037 - 1972 dollars.

1982

$$\frac{27,000}{230} = \frac{N}{100}$$

$$230N = 2,700,000$$

$$N = \frac{2,700,000}{230}$$

$$N = \$11,739$$

In 1982, he/she had $11,739 - 1972 dollars.

In 1980, he/she was financially better off than in 1972.
In 1981, he/she was financially better off than in 1972.
In 1982, he/she was financially worse off than in 1972.

AGGREGATE DEMAND-AGGREGATE SUPPLY

Introduction: This activity is designed to give students practice in analyzing the effects of changes in aggregate demand and supply on the levels of national output and prices, and in manipulating aggregate demand and supply curves.

Time Required: 45 minutes.

Concepts and Skills: Aggregate Demand, Aggregate Supply, Graphing.

Instructional Objectives: Given instances of changing levels of aggregate demand and aggregate supply, students should be able to:

1. Specify whether the given instances represent a change in aggregate demand or aggregate supply.
2. Show the direction of change by shifting the appropriate curve in the proper direction.
3. Describe the effect of the change on the levels of output and prices.

Material Required:

1. AD-AS Worksheet.

Procedure:

1. Review the basics of aggregate supply and aggregate demand with your students.
2. Hand out the AD-AS Worksheet. Tell students to show the effects of the various instances of change in AD or AS on the levels of prices and real GNP by shifting the appropriate curve in the proper direction.
3. Give students about 15 minutes to complete the worksheet.
4. Review answers with students (see answers on following pages).

Source of Activity: This activity developed by Steve Jackstadt, UH Center for Economic Education.

AGGREGATE SUPPLY AND DEMAND

AGGREGATE SUPPLY -- willingness and ability of the economy to supply the composite good called GNP

Components or Inputs of AS

1. Land
2. Labor
3. Capital
4. Technology (science)
5. Entrepreneurship and management (risk taker not the same as manager)

AGGREGATE DEMAND -- refers to the demand for goods and services in the aggregate (total economy)

Components or Inputs of AD

1. Consumer goods and services (C)
2. Investment in capital goods and services by products (I)
3. Government purchases of goods and services (G)
4. Net exports (exports minus imports) (X)

$AD = C + I + G + X$

DETERMINANTS OF AGGREGATE SUPPLY AND DEMAND

DETERMINANTS OF AGGREGATE SUPPLY (What makes AS increase or decrease)

1. Increase or decrease in available resources (inputs of AS)
2. Increase or decrease in productivity
3. Increase or decrease in the price of resources (inputs of AS)
   Example: increase in the price of oil

DETERMINANTS OF AGGREGATE DEMAND (What makes AD increase or decrease)

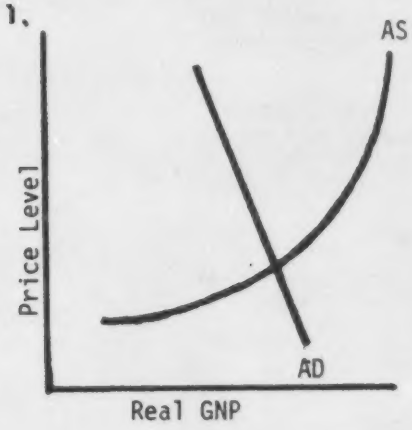
1. Consumption (C)
   A. Disposable income
      Example: Taxes increase or decrease
   B. Population increases or decreases
   C. Real interest rates (stated interest rates minus inflation)
   D. Expectations regarding prices and state of the economy in the future
2. Investment (I)
   A. Real interest rates (see above)
   B. Expectations (see above)
3. Government (G)
   A. Increased government spending
   B. Decreased government spending

Source of Activity: This activity developed by Shoshana Herzig, Moanalua High School.

AD - AS WORKSHEET

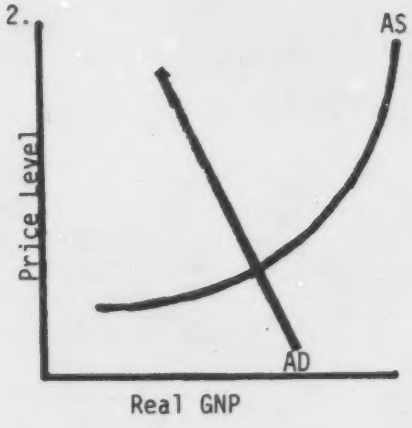
Show the effect of each of the following on AD and/or AS. What happens to the price level and real GNP in each case?

1.



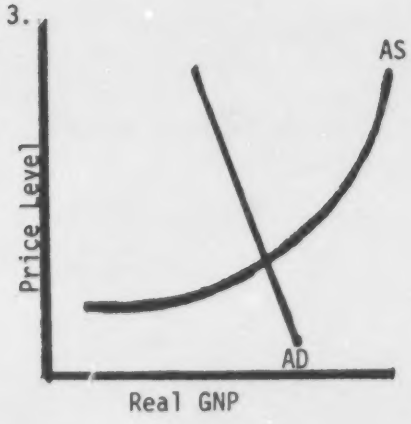
Overall labor productivity increases.

2.



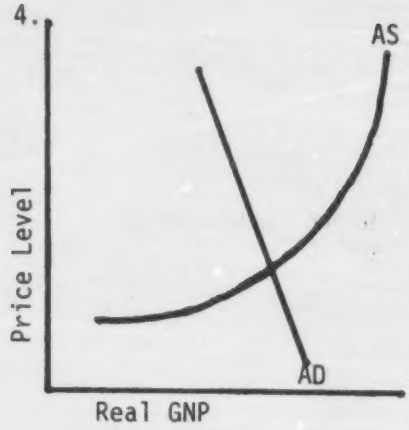
Oil prices soar!

3.



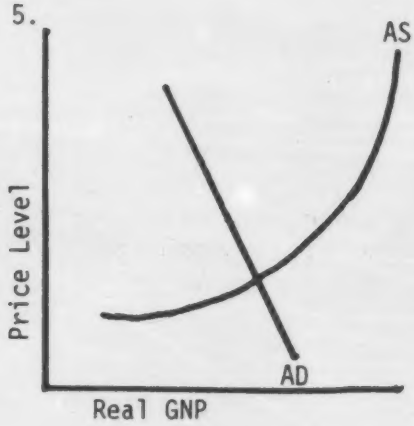
Government cuts Defense spending.

4.



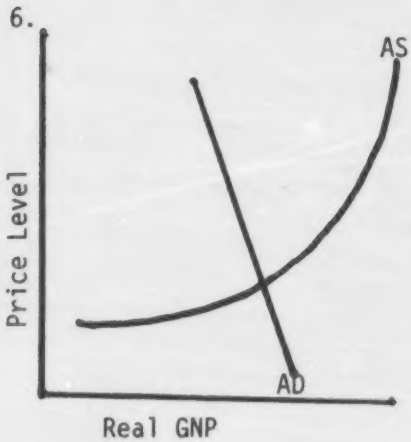
Consumer saving increases in anticipation of Depression.

5.



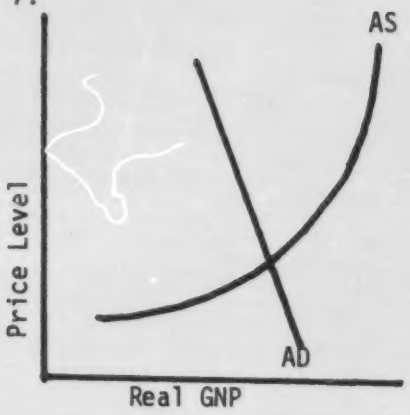
Income tax cut increases consumer spending.

6.



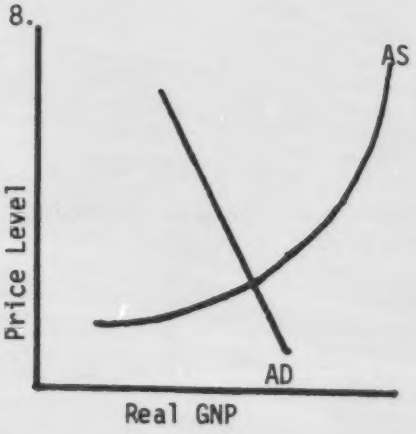
Increased wheat exports to India make farmers happy.

7.



Scientific breakthrough makes cheap solar energy a reality.

8.



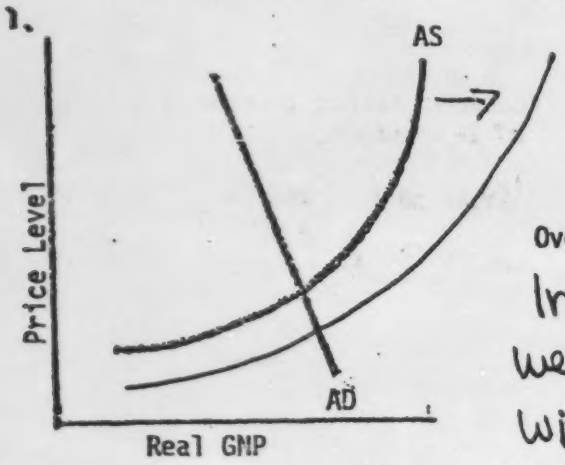
Price of wood and wood products soar as fires ravage Washington, Oregon, and California.

AD - AS WORKSHEET

(ANSWERS)

Show the effect of each of the following on AD and/or AS. What happens to the price level and real GNP in each case?

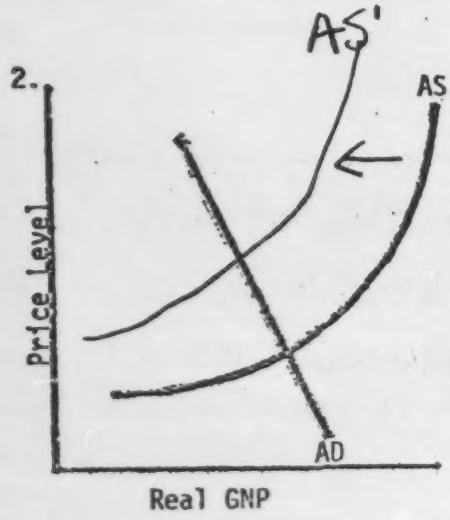
1.



Overall labor productivity increases.

Increased productivity means we can produce more output with given labor resources. Output will increase and prices will fall.

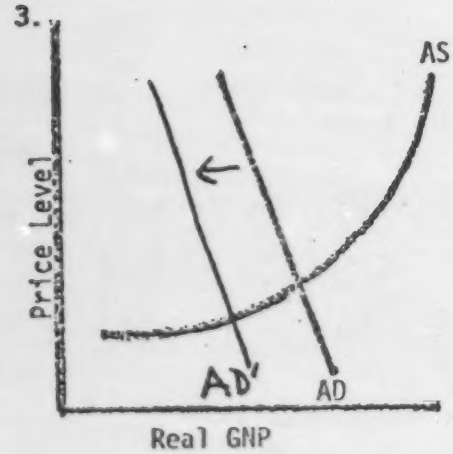
2.



Oil prices soar!

Higher oil prices reduce supply. Prices go up and output falls.

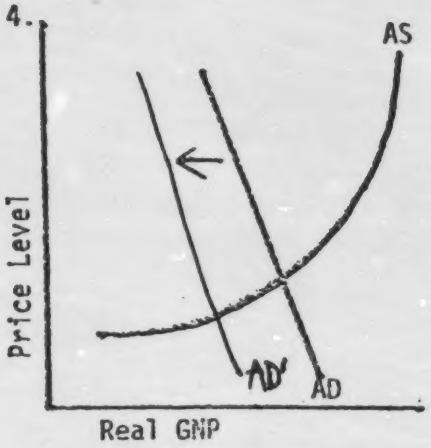
3.



Government cuts Defense spending.

Government demand is an important component of total demand. As it falls, output drops and so does the price level.

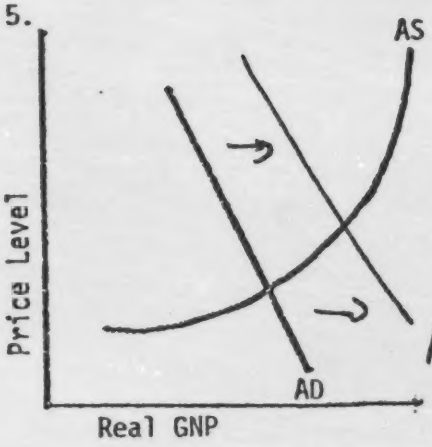
4.



Consumer saving increases in anticipation of Depression.

Increased saving means less demand?

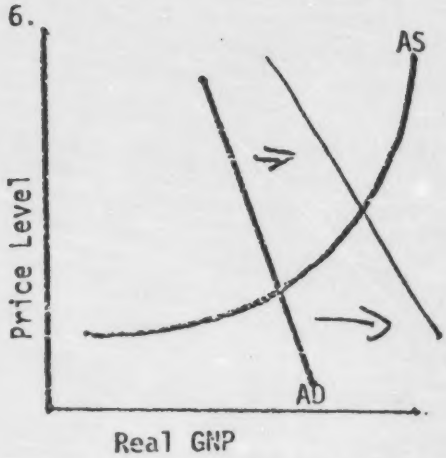
5.



Income tax cut increases consumer spending.

A tax cut increases consumers disposable incomes. Consumer demand increases, thereby increasing AD.

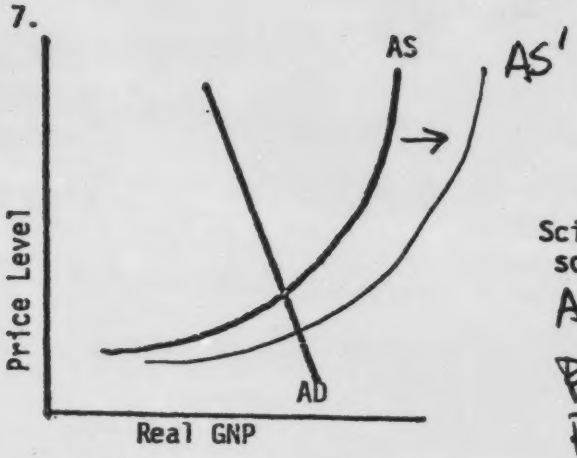
6.



Increased wheat exports to India make farmers happy.

Foreign demand is also a component of AD. As it goes up the AD curve shifts outward. Prices and output increase

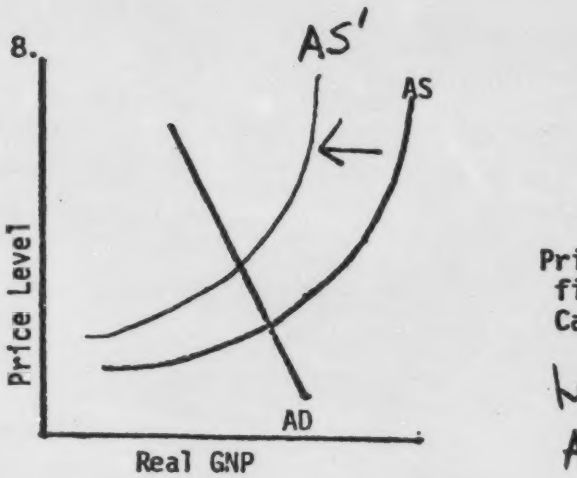
7.



Scientific breakthrough makes cheap solar energy a reality.

As solar energy helps us produce more, AS increases. Prices fall.

8.



Price of wood and wood products soar as fires ravage Washington, Oregon, and California.

Less lumber means less AS, higher prices and lower output.

CAUSE AND EFFECT SCHEMATIC

Introduction: The main purpose behind this schematic is training in cause and effect thinking. It can be used for any social studies topic. In sample "A" the starting box was "decreased aggregate supply." Students were asked to show as many causes of decreased aggregate supply as they could think of, and in turn, what conditions decreased aggregate supply itself causes. In sample "B" the same procedure was used with the starting box of "increased aggregate demand."

Time Required: 50 minutes class time plus homework time.

Concepts: Cause and effect applied to aggregate supply and aggregate demand.

Instructional Objectives: At the end of this activity the student will be able to:

1. Demonstrate by using a diagram, the many causes and effects of changes in aggregate supply and aggregate demand.

2. Demonstrate the ripple effect of such changes.

Materials Required: None.

Procedure:

1. Show the students a sample of a cause and effect schematic so that they have an idea of what is required.

2. Do not let the students keep the sample since they then tend to copy the sample rather than create their own schematic.

3. Let students work in pairs and finish their work outside of class.

4. You may wish to use different starting boxes in each class.

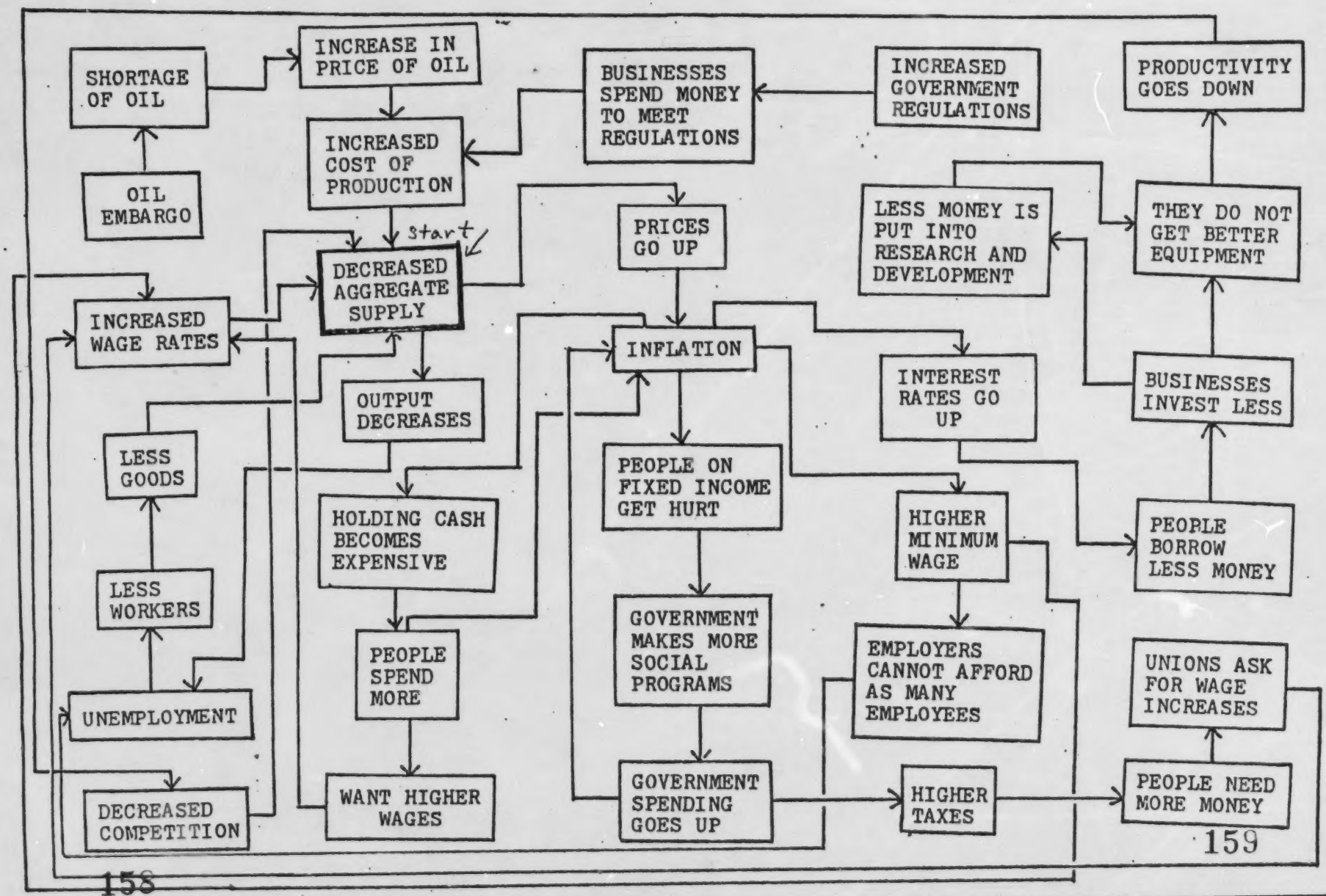
5. Some other starting boxes might be:

   a) increased productivity.
   b) decreased productivity.
   c) increased inflation.
   d) decreased income tax.
   e) increased unemployment.
   f) increased federal spending.
   g) increased budget deficit.
   h) increased or decreased money supply.
   i) increased corporate tax.
   j) increased tariff on imports.

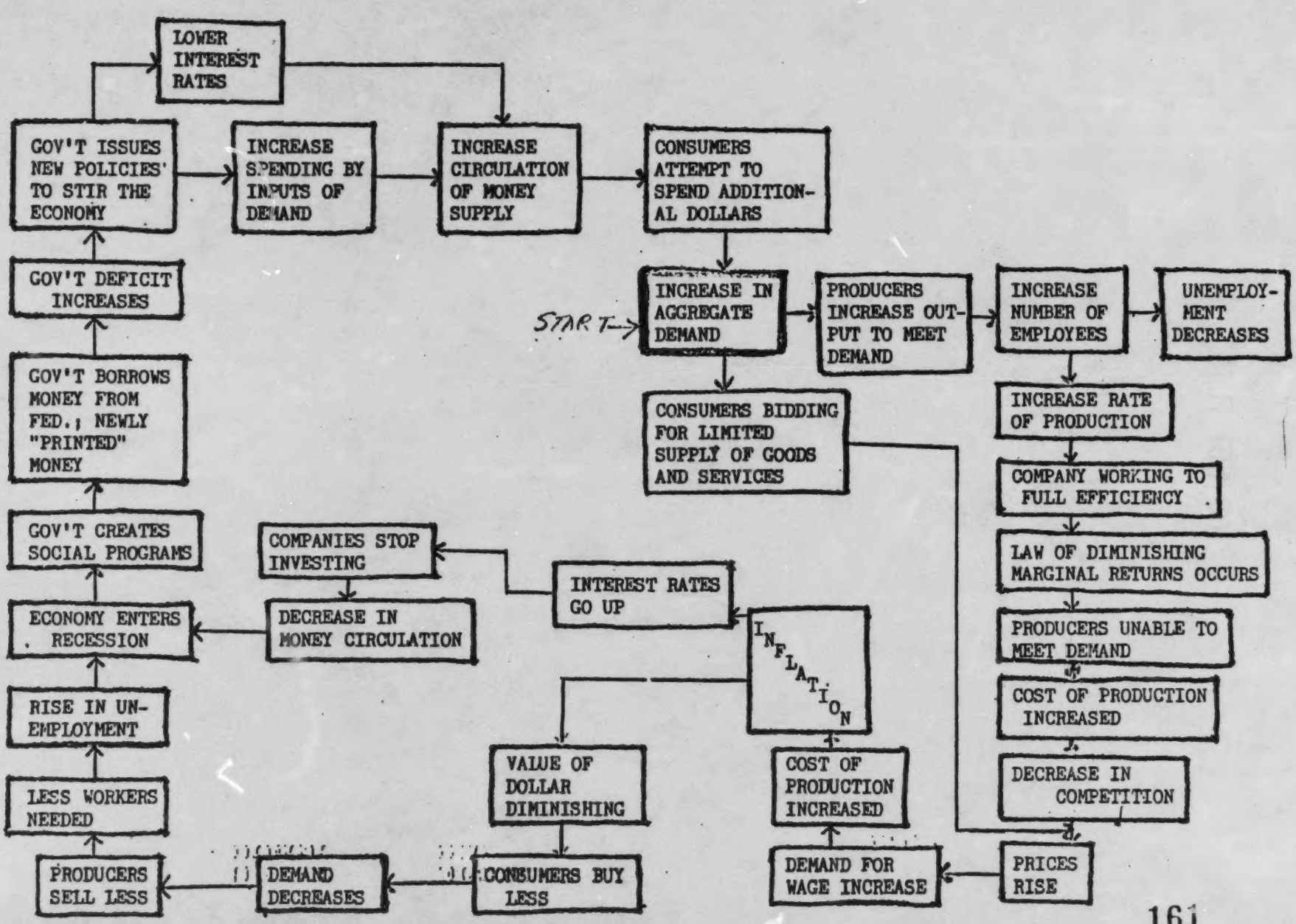
Source of Activity: Adapted from lesson plan by Shoshana Herzig, Moanalua High School.

"A"

CAUSE AND EFFECT OF DECREASED AGGREGATE SUPPLY



CAUSE AND EFFECT SCHEMATIC


LOWER INTEREST RATES
GOV'T ISSUES NEW POLICIES TO STIR THE ECONOMY
INCREASE SPENDING BY INPUTS OF DEMAND
INCREASE CIRCULATION OF MONEY SUPPLY
CONSUMERS ATTEMPT TO SPEND ADDITIONAL DOLLARS
GOV'T DEFICIT INCREASES
START
INCREASE IN AGGREGATE DEMAND
PRODUCERS INCREASE OUTPUT TO MEET DEMAND
INCREASE NUMBER OF EMPLOYEES
UNEMPLOYMENT DECREASES
GOV'T BORROWS MONEY FROM FED.; NEWLY "PRINTED" MONEY
CONSUMERS BIDDING FOR LIMITED SUPPLY OF GOODS AND SERVICES
INCREASE RATE OF PRODUCTION
COMPANY WORKING TO FULL EFFICIENCY
GOV'T CREATES SOCIAL PROGRAMS
COMPANIES STOP INVESTING
INTEREST RATES GO UP
LAW OF DIMINISHING MARGINAL RETURNS OCCURS
ECONOMY ENTERS RECESSION
DECREASE IN MONEY CIRCULATION
INFLATION
PRODUCERS UNABLE TO MEET DEMAND
RISE IN UNEMPLOYMENT
COST OF PRODUCTION INCREASED
VALUE OF DOLLAR DIMINISHING
COST OF PRODUCTION INCREASED
DECREASE IN COMPETITION
LESS WORKERS NEEDED
PRODUCERS SELL LESS
DEMAND DECREASES
CONSUMERS BUY LESS
DEMAND FOR WAGE INCREASE
PRICES RISE

WHAT'S THE RELATIONSHIP?

Introduction: This activity is a discovery lesson designed to help students determine the relationship between unemployment and economic growth through the analysis of post-World War II data.

Time Required: 45 minutes

Concepts and Skills: Unemployment, Economic Growth (real GNP), Critical thinking-analyzing.

Instructional Objectives: Students will use graphs to analyze the relationship between the unemployment rate and the annual growth rate in real GNP between 1948 and 1978 by:

1. Identifying time periods characterized by a high rate of unemployment.
2. Identifying time periods characterized by a low rate of annual growth in real GNP.
3. Making statements describing the relationships between the unemployment rate and the rate of annual growth in real GNP.

Materials Required:

1. Student copies of graphs depicting annual growth rate in real GNP and unemployment rates.
2. Transparency of graphs.
3. Student copies of the worksheet - "What's the Relationship?"

Procedure:

1. Distribute handouts containing the two graphs and the student worksheet. Ascertain that students understand the concepts, real GNP and unemployment rate.
2. First focus student attention on Graph A, depicting the annual growth rate in real GNP for the years 1947-1980. Establish the understanding that lines of the graph above the "0" baseline indicate times of positive annual growth rate in real GNP and lines of the graph below the baseline indicate times of negative annual growth rate in real GNP. Ask:

   a) In what year did the economy experience the largest percentage of positive growth in real GNP?

b) In what year did the economy experience the largest percentage of decline in real GNP?
c) What words would you use to describe the annual growth rate in real GNP between the years 1961-1969? After discussion about the growth rate in real GNP between 1961-1969, direct students to write their description in the appropriate section of the worksheet, "What's the Relationship?"

3. Direct student attention to Graph B, depicting unemployment rates between 1948-1980. Ask:

   a) In what year was the percentage of unemployment highest? Lowest?
   b) What words would you use to describe unemployment in the U.S. between the years 1961-1969? After discussion, ask students to write this description in appropriate space of Column B of the worksheet.

4. Tell students that they are to use the two graphs to:

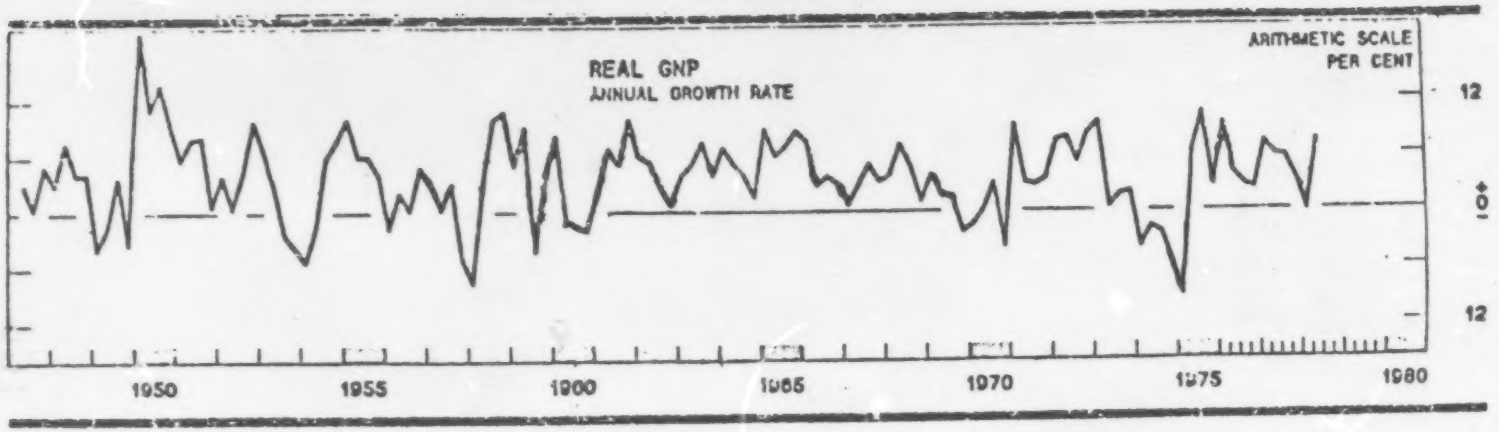
   a) Complete the description for the other time periods listed on the worksheet.
   b) After writing descriptions of annual growth rates in real GNP and unemployment rate for the given years, study the accumulated data and write a statement of relationship between the two in the space provided at the bottom of the worksheet.
   c) If they so wish, select other time periods depicted in the graph, write descriptions in the two columns and check to see if the relationship holds true in those time periods.

5. When discussing student responses after completion of the worksheet, if the students are able, encourage them to relate what was happening in the United States in each time period that may have had an effect on growth rate in real GNP and/or the unemployment rate.

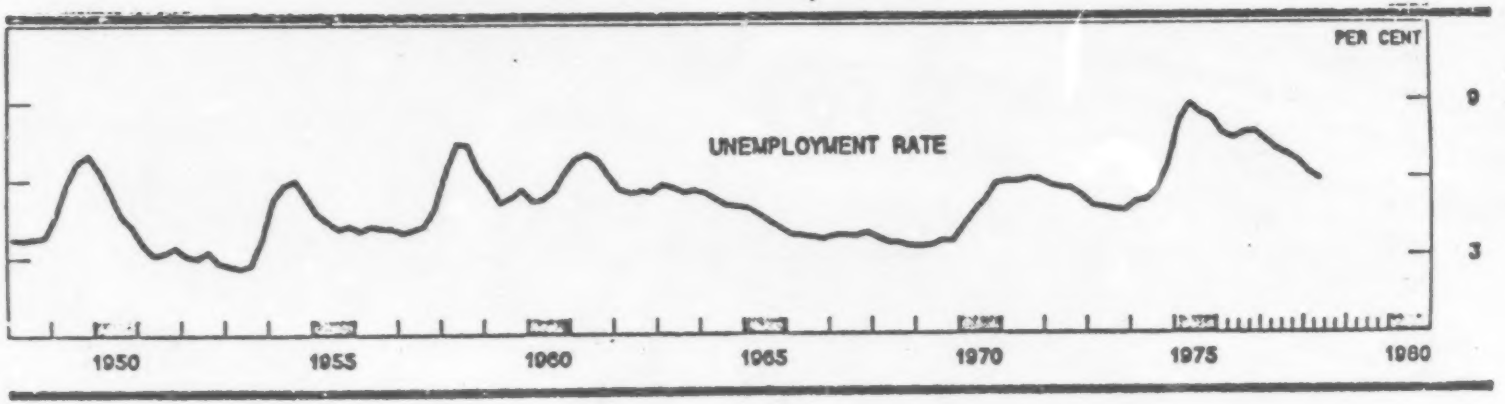
6. To bring closure to this lesson cut the transparency made of the graphs so that each graph will be separate. On the projector lay the unemployment rate graph on the top of the growth rate in real GNP graph in such a way so students can see that, generally, growth in real GNP is inversely related to the unemployment rate.

Source of Activity: Developed by E. Williams for Teaching Social Studies Methods With Economics, Purdue University Center for Economic Education, Dennis Weidenaar, Director, 1981. Used with permission.

GRAPH A



GRAPH B



Source: Historical Chart Book, Board of Governors of the Federal Reserve System, 1978, pp. 12, 20.

WHAT'S THE RELATIONSHIP?

STATE THE RELATIONSHIP BETWEEN THE ANNUAL GROWTH RATE IN REAL GNP AND THE RATE OF UNEMPLOYMENT.

Time Periods	Column A Description of the Annual Growth Rate in Real GNP	Column B Description of the Unemployment Rate
1. 1961-1969		
2. 1950-1953		
3. 1975-1978		
4. 1948-1950		
5. 1973-1975		
6. 1955-1958		
Other:		

LIVING IN THE "GREAT DEPRESSION"

Introduction: A resource person who has lived during the Great Depression can be a valuable resource to the secondary social studies teacher. In this lesson, students interview such a person to learn more about that time period.

Guidelines for planning and organizing a lesson utilizing a resource person are included. Follow-up lessons to reinforce the learnings from the interview will be needed.

Time Required: Two or three class periods, plus 60 minutes out of class for interview.

Concepts and Skills: Depression, Unemployment, Data Collection, Interviewing.

Instructional Objectives: The students will collect data about the Great Depression by participating in an interview, asking questions and recording information relating to a specific topic.

Materials Required:

1. Tape recorder and tape (optional).

Procedure:

1. Preparing for the resource person

   a) Select a resource person who will feel comfortable being interviewed and be able to provide colorful and accurate information about that time period.

   b) Explain to the person why he/she is being interviewed and provide him/her with topics and sample questions which might be asked.

   c) Provide information about the class, place, time and length of interview. Preparing this information in written form will better insure the success of the interview.

   d) Reconfirm the time and place with the resource person a day or two before the interview.

   e) Introduce the topic - The Great Depression. Ask students what they would like to learn about that time period. Write their ideas on the chalkboard. In order to get students participating in the discussion, the teacher may want to stimulate their thinking by sharing a few items of information or interesting stories related to that time period.

   f) Explain to students that a person who lived during that time period will be visiting the class to be interviewed.

g) Based on the ideas suggested in step five, assign students to work in groups under specific topics. Suggested topics include:

1. income distribution
2. prices during that time period
3. values and attitudes of the time period
4. the types of work people did
5. fiscal policy - government
6. tax expenditures
7. effects of the Depression on family life

h) Each group is to write interview questions related to their topic. This may require additional research in textbooks, encyclopedias, etc., in order to ask pertinent questions. Students also need to decide how their group will conduct their portion of the interview.

j) Since this lesson's primary focus is the gathering of data about a particular time period, the teacher may need to teach students how to take notes during the interview.

j) Once the questions are written, the teacher should collect them and check them for appropriateness.

2. The lesson

a) Redistribute the questions to the groups and allow a few minutes for the groups to get organized.

b) Introduce the resource person.

c) Allow the groups to conduct their interviews. Note: The teacher may want to tape record the interviews for future reference.

d) Thank the resource person and briefly summarize the information presented.

3. Follow-up

a) It is suggested that the teacher follow the interview lesson with a discussion and evaluation of the interview. A portion of the discussion might focus on the interviewing process as an effective or ineffective tool for gathering information.

b) Other lessons on the topic of the Great Depression are important for reinforcing the information shared during the interview. Students may use this information as a basis for doing additional research and reporting on their assigned topics.

c) Send a thank-you letter to the speaker.

Source of Activity: Developed by M. McGuire for Teaching Social Studies Methods With Economics, Purdue University Center for Economic Education, Dennis Weidenaar, Director, 1981. Used with permission.

MONEY AND INFLATION

Introduction: Inflation, as we all know, is an increase in the general level of prices. The main cause of the inflation the U.S. has been experiencing since 1967 is "too many dollars chasing too few goods," i.e. increases in the money supply relative to the supply of goods and services. This lesson is designed to give students a basic understanding of the inflationary effects of increasing the money supply relative to the supply of real goods and services.

Time Required: 50-60 minutes.

Concepts: Inflation, Money Supply.

Instructional Objectives: At the end of the activity, students will be able to:

1. Define the term "inflation".
2. Explain how increases in the money supply, relative to the supply of real goods and services, cause inflation.

Materials Required: For two-thirds of the class, prepare $90 per student in fake $1 bills. It is possible to get six 5 1/2" X 2 1/2" bills out of an 8 1/2" X 11" sheet of paper. For the other one-third of the class, get some poker chips or reasonable facsimile. You should have three colors of chips - red, white, and blue. One chip of each color per student will suffice.

Procedure:

1. Select two students as recorders and one as "Economic Analyst." Divide the rest of the class into two groups; 1/3 of the class will be sellers or business people, and the other 2/3 will be buyers or consumers.
2. Explain that the object of the game is for sellers to make as much money as possible by selling red, white, and blue poker chips. The object for consumers is to accumulate as many points as possible by purchasing the chips. Red chips are worth 10 points each, white chips are worth 5 points, and blue chips are worth 2 points. Write the number of points that each chip is worth on the blackboard.
3. Tell the students that the game will have two (2) winners. The business person who makes the most money by the end of the game will be declared the winner among sellers, and the consumer who accumulates the most total points will be declared the winner among the buyers.

Round 1

4. Distribute one chip of each color to each seller, and give $10 in cash to each buyer before the round begins. Explain that the chips represent goods and services that people desire. The points represent the "utility" that people derive from consuming the goods and services.

5. Begin Round 1. Tell students that they will have 3 minutes to freely walk around the room and transact business at whatever price buyers and sellers agree upon.

6. When the round is over, sellers should turn in all the money they have received to recorder #1. The recorder will write down the amounts received from each seller. The total amount of money turned in by each seller by the end of the game will represent that seller's SCORE.

7. Sellers should also record the total number of chips sold during the round and their total sales revenue on a "SELLERS INFORMATION SHEET" like the one below:

SELLER'S
INFORMATION SHEET
ROUND___

Number of Chips Sold_____

Sales Revenue_____

The information sheets should be given to the Economic Analyst, who will write the average price of a chip for Round 1 on the blackboard or on a large piece of butcher paper. The average price is found by simply dividing the total amount of sales revenue for all sellers, by the total number of chips bought and sold.

ROUND	1	2	3	4	5
AVG. PRICE	$6.25				

The average price figure represents a price index number in much the same way as the CONSUMER PRICE INDEX.

8. Buyers should turn in their chips to recorder #2, who will record their Round 1 point totals on a "CONSUMER SCORE SHEET" like the one below:

CONSUMER SCORE SHEET

Consumer	Round 1	Round 2	Round 3	Round 4	Round 5	Total
1.						
2.						
3.						

The total number of points accumulated by each consumer will represent his/her score.

9. Announce the average price for chips during the round. If you want to, you can also announce the scores for the leading buyer and seller - it adds to the excitement!

Round 2

10. Begin round two as before, by giving each seller a red, a white, and a blue chip. Give each buyer $10.

11. Start the round and allow 3 minutes for transactions.

12. Have sellers turn in their chips for points, and have buyers turn in their cash.

13. Have the economic analyst record the average price of chips and announce the average price to the class.

Round 3

14. Begin round three as before, but this time DOUBLE THE MONEY SUPPLY by giving each buyer $20. Give sellers one of each color chip, as before.

15. Allow 3 minutes for transactions, then have the students turn in their chips and money.

16. Record the average price and announce it to the class. (Note: since the money supply has increased and the number of chips has remained constant, prices will rise. This is where the learning begins!)

Round 4

17. Start as before, but DOUBLE THE MONEY SUPPLY again. Give each buyer $40 and keep the number of chips constant.

18. Allow 3 minutes for transactions and go through the collect-and-record process again. Prices should continue to rise.

Round 5

19. For the last round, return to the original situation where you give each buyer $10. As before, give each seller one chip of each color.

20. Allow 3 minutes for transactions then collect and record. Since the money supply has been reduced, prices will fall - and some chips may remain unsold, just like "unsold inventory."

Review: When Round 5 is completed, tally the points and announce the winners. Direct students' attention to the chart showing the average price of chips per round. Ask the students to describe what happened to prices over the course of the game. Ask them why prices went up dramatically in rounds 3 and 4. Ask them why prices fell in round 5. Ask them if they can draw any conclusions regarding the relationship between changes in the money supply and inflation. Tell them that economists claim that the main cause of inflation is "too much money chasing too few goods." Ask them how this statement is illustrated by the game.

Source of Activity: Adapted from a lesson plan by Stephen Jackstadt, Center for Economic Education, University of Hawaii.

THE FEDERAL RESERVE SYSTEM

Introduction: The Federal Reserve has the authority to restrict or increase the money supply to attain our national economic goals. This lesson is designed to help students understand the functions of the Federal Reserve System.

Time Required: 1 library research period.
1 50 minute class period.

Concept/Skills: Federal Reserve System, Research Skills.

Instructional Objectives: At the end of this activity, students will be able to:

1. Identify and list the functions of the Federal Reserve System.
2. Identify the role of the Federal Reserve System in the money supply.

Materials Required:

1. Information on the Federal Reserve System from textbooks, encyclopedias, etc.
2. The Story of Checks, pamphlet available from the Federal Reserve Bank of New York,
3. Chart of Federal Reserve Districts and Branches.
4. Chart tracing a check.
5. Library Worksheet.
6. Federal Reserve Worksheet.

Procedure:

1. Meet with the school librarian prior to scheduling a library period for the class to set aside books with information on the Federal Reserve.
2. Prior to a scheduled library period, hand out "Library Worksheet" to students. Discuss with the students the instructions and questions on the worksheet. Schedule one library period for students to do research.
3. After the library period, discuss with the students the answers on the worksheet. Teacher led discussion should clarify any questions on the worksheet.
4. Having completed the discussion on the answers to the "Library Worksheet," place the chart on the "Federal Reserve Districts and Branches" in front of the class. Ask students to find what district Hawaii is in.

5. Ask students if they have a dollar bill. If they do, ask them to look at the letter stamped just to the left of George Washington's picture. If it was issued by the Federal Reserve Bank of San Francisco, it will have an "L" stamped on it since "L" is the 12th letter of the alphabet. The number "12" will also appear on the bill. If, on the other hand, the bill was issued by the Federal Reserve Bank of Boston, the letter "A" and the number "1" will be on the bill, since Boston is the first Federal Reserve District. (This is a "fun" activity for students to find out where their dollar bill originated.)

6. Place chart on "Tracing the Steps of a Check" on the board. Discuss and explain the steps on the chart to the students. Clarify any questions they may have.

7. Hand out "Federal Reserve Worksheet." Read the instructions aloud to the class. Allow 10 minutes for this activity.

8. After students have completed the worksheet, go over the answers. Answers are:

1.	Y	9.	Y
2.	N	10.	N
3.	Y	11.	Y
4.	Y	12.	Y
5.	N	13.	N
6.	Y	14.	Y
7.	N	15.	Y
8.	Y		

Source of Activity: Adapted from lesson plan by Alexis Kane, Sacred Hearts Academy.

FEDERAL RESERVE DISTRICTS AND BRANCHES

42

TRACING A CHECK

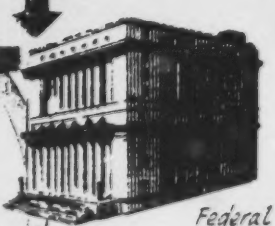
TO SEE HOW THE FEDERAL RESERVE SYSTEM FITS TOGETHER, LET'S TRACE A CHECK THROUGH ITS COLLECTION AND CLEARING FACILITIES --

SUPPOSE MRS. HENDERSON, LIVING IN ALBANY, N.Y., BUYS A PAINTING FROM AN ART DEALER IN SACRAMENTO, CALIFORNIA.

1 THE DEALER DEPOSITS THE CHECK IN HIS ACCOUNT AT A SACRAMENTO BANK.

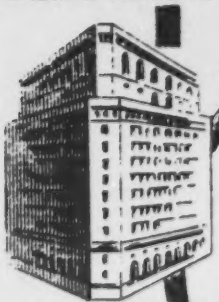
Sacramento Bank

2 THE SACRAMENTO BANK DEPOSITS THE CHECK FOR CREDIT IN ITS ACCOUNT AT THE FEDERAL RESERVE BANK OF SAN FRANCISCO.



Federal Reserve Bank of San Francisco

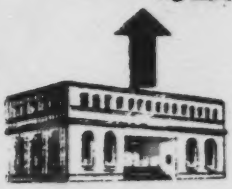
3 THE FEDERAL RESERVE BANK OF SAN FRANCISCO SENDS THE CHECK TO THE FEDERAL RESERVE BANK OF NEW YORK FOR COLLECTION.



Federal Reserve Bank of New York

Interdistrict Settlement Fund

4 THE FEDERAL RESERVE BANK OF NEW YORK FORWARDS THE CHECK TO THE ALBANY BANK WHICH DEDUCTS THE AMOUNT OF THE CHECK FROM MRS. HENDERSON'S ACCOUNT.



Albany Bank

5 THE ALBANY BANK AUTHORIZES THE FEDERAL RESERVE BANK OF NEW YORK TO DEDUCT THE AMOUNT OF THE CHECK FROM ITS DEPOSIT ACCOUNT WITH THE RESERVE BANK.

6 THE FEDERAL RESERVE BANK OF NEW YORK PAYS THE FEDERAL RESERVE BANK OF SAN FRANCISCO BY PAYMENT FROM ITS SHARE IN THE INTERDISTRICT SETTLEMENT FUND.

7 THE FEDERAL RESERVE BANK OF SAN FRANCISCO CREDITS THE SACRAMENTO BANK'S DEPOSIT ACCOUNT, AND THE SACRAMENTO BANK CREDITS THE ART DEALER'S ACCOUNT.

LIBRARY WORKSHEET

1. What is the Federal Reserve System (Fed)?

2. When was it established?

3. Why was it established?

4. What are the specific functions of the Fed?

5. How is the Fed set up? How does it operate?

6. What relationship does the Fed play with government spending and monetary policies of the government?

7. What historical events took place prior to 1914 that signaled the need for an agency such as the Fed?

8. Who controls the Fed? Does the check and balance system outlined in the Constitution apply to the Fed?

9. What agencies, if any, does the Fed work with in influencing monetary policy? Or does it operate independently?

10. What is the Fed's role in controlling inflation?

FEDERAL RESERVE WORKSHEET

Read each statement carefully. If the function described in the statement applies to the Federal Reserve System (Fed), write the letter Y for yes in the blank to the left of the statement. If it does not, write the letter N for no.

_____1. The Fed prints the federal reserve notes used by American citizens.

_____2. The Fed collects the debts owed to the U.S. federal government.

_____3. The Fed is part of the federal government.

_____4. The Fed regulates the amount of money that banks must keep on reserve.

_____5. The Fed has no claims on national banks.

_____6. The Fed can make changes in the reserve requirements on demand and time deposits for member banks.

_____7. The Fed is owned and operated by banks which are members of the Federal Reserve System.

_____8. The Fed cannot make loans to individuals.

_____9. The Fed provides check-clearing services for its members.

_____10. The Fed is responsible for the payment of salaries of all federal employees.

_____11. The Fed can purchase or sell U.S. government securities (bonds) on the open market.

_____12. The Fed can determine the interest rate on loans to member banks.

_____13. The Fed meets with Congress to determine fiscal policy for the country.

_____14. The Fed can use the discount rate as a signaling device to contract or expand the money supply.

_____15. The Fed is probably the most powerful monetary agency in the U.S.

RESERVE RATIO

Introduction: Monetary policy, as determined by the Federal Reserve System (FRS), is used to expand or contract the economy as the problems of inflation or unemployment take over the economy. One of the tools at the disposal of the FRS is the reserve ratio which may be lowered to expand the money supply and combat problems like unemployment or may be increased to contract the money supply and combat the likes of inflation.

This lesson is designed to illustrate to students the effects of raising and lowering the reserve ratio.

Time Required: 30 minutes.

Concept and Skill: Reserve Ratio, Monetary Policy.

Instructional Objective: At the end of this activity, students will be able to:

1. Describe the effects of raising and lowering the reserve ratio.

Material Required:

1. 10 fake $10 bills.

Procedure:

1. Choose five students and sit them in front of the class. Label the students Banks A - E.

2. Be a fictitious depositor and deposit ten $10 bills. Ask the class if Bank A should hold on to all $100. Point out how the bank promises an interest to the depositor, how the bank as a business has expenses and a profit-motive. Also point out the probability of all depositors asking for their money back at the same time. Because of these two factors, banks only hold on to a percentage, a reserve, as dictated by the FRS.

3. Set reserve ratio at $20. Take the $80 and deposit in Bank B; keep $20 in Bank B, and deposit $60 in Bank C; keep $20 in Bank C and deposit $40 in Bank D; and finally keep $20 in Bank D and deposit $20 in Bank E.

BANKS		DEPOSIT
A	/	$100
B	/	$ 80
C	/	$ 60
D	/	$ 40
E	/	$ 20

4. Note to the class how $100 has generated $300 worth of economic activity.

5. Redo the procedure but set reserve at $15.

BANKS		DEPOSIT
A	/	$100
B	/	$ 85
C	/	$ 70
D	/	$ 55
E	/	$ 40
A_1	/	$ 25
B_1	/	$ 10

6. Note to the class how $100 has now generated $385 and how lowering the reserve rate has increased the money supply.

7. Set the reserve at $25 and redo procedure.

BANKS		DEPOSIT
A	/	$100
B	/	$ 75
C	/	$ 50
D	/	$ 25
E	/	$ 0

8. Note to the class how $100 has now generated only $250 and how raising the reserve rate has decreased the money supply.

9. Discuss the following questions with the students:

   (a) What effect did lowering the reserve rate do to the Money Supply?
   (b) What effect did raising the reserve rate do to the Money Supply?
   (c) Which policy should the FED follow to combat umeployment?
   (d) Which policy should the FED follow to combat inflation?

   The last two questions are predicated on the fact that the student has had some prior information in other lessons on the FED. Also note that a reserve rate and not a ratio was set just for the convenience of handling money.

Source of Activity: Adapted from a lesson plan by Lyle Hendricks, Farrington High School.

FISCAL POLICY GAME

Introduction: Fiscal policy is the Federal government's use of its tax and spending powers to offset swings in the business cycle. This activity is designed to give students practice in applying what they already know about fiscal policy to "real world" situations. Students are asked to place themselves in the roles of fiscal policy-makers and to suggest tax and spending policies which might bring about full employment, price stability and economic growth.

Time Required: 45 minutes to one hour.

Instructional Objectives: Given specific situations, students should be able to:

1. Recommend tax and spending policies which would have a reasonable probability of advancing the economy toward the goals of full employment, price stability and economic growth.

2. Identify factors affecting fiscal policy.

Material Required:

1. Fiscal Policy Game Handout.

Procedure:

1. Divide the class into groups of three. Tell them that they represent the President's Council of Economic Advisors and that they are to advise the President as to correct fiscal policy in four separate situations. Give the groups 20-30 minutes to work out their recommendations. (Fiscal Policy Game handout.)

2. Go over each situation with the class as a whole. Let various groups present their recommendations and allow other groups to critique those recommendations.

   Answers:

   Situation #1. In this situation you want to do something to stimulate a lagging economy. Cut personal and/or business taxes and increase government spending.

   Situation #2. This is a tough one, similar to the situation Lyndon Johnson faced in 1966. If you raise taxes and/or cut government spending in order to fight inflation, you're likely to increase unemployment. In addition, you don't want to cut the social services part of the budget because of the trouble in the cities, nor do you want to disappoint Americans by slowing the space program. Maybe your students can find the answer!

Situation #3. This is an easy one. Cut taxes and increase government spending.

Situation #4. I wouldn't do anything. You've got to worry about inflation, but that's about it. Place a call over to the Federal government and ask them to slow the rate of growth in the money supply!

FISCAL POLICY GAME
(Fun, fun, fun!)

As members of the President's Council of Economic Advisors, what kinds of fiscal actions would you recommend under the following circumstances?

1. The economy is stagnant in peacetime, with unemployment at 10% of the labor force. Consumers and business persons show no signs of wanting or of being able to increase their spending.

2. The U.S. is involved in a limited war of the Vietnam variety. Prices are increasing at a rate of 9% per year. The unemployment rate is 6% of the labor force. The urban poor are agitating for more welfare money by setting fire to a couple of cities every couple of months, and the middle classes are excited about the possibility of putting a people on Mars. It is an election year.

3. We are in the midst of a world-wide depression. Unemployment is 25% and the prices of most goods are falling.

4. We are experiencing a peacetime economic boom. Prices are increasing at a rate of 4.1% per year. In particular, business investment is soaring, with large amounts being spent on enlarging plant capacity. Consumers are optimistic and spending on durable goods is high.

Source of Activity: Adapted from a lesson plan by Stephen Jackstadt, Center for Economic Education, University of Hawaii.

TRADE-OFFS OF TRADE

Introduction: This activity helps students understand the trade-offs which must be made in economic decision-making. There are costs and benefits for each choice. Students must also be aware that each choice incurs opportunity costs.

Time Required: 45 minutes .

Concepts: Opportunity Costs, Trade-Offs.

Instructional Objectives: The student will:

1. Identify some of the costs and benefits of international trade and explain how scarcity affects economic decision-making.

2. Understand that every choice incurs opportunity costs by listing opportunity costs of specific situations and listing or identifying contributions of foreign trade to our life style.

Material Required:

1. Copies of student reading and worksheet: Trade-Offs of Trade.

Procedure:

1. Introduce lesson by asking students what would be the determining factors for buying a good. (Examples: costs, quality of good.) List responses on the chalkboard. Explain that there are many factors to consider when making decisions.

2. Distribute student reading and worksheet: Trade-Offs of Trade.

3. Have students fill out the worksheets.

4. For the final trade-off exercise one student will write a scenario and then ask another seated nearby to fill out the choice-making chart.

5. After the students have finished their tasks, you might invite them to share their responses with specific emphasis on the national values which are suggested in each phase of the activity.

6. To bring closure instruct students to create a list of the five economic/value goals of the U.S.A. for the next decade.

Source of Activity: Adapted from curricular materials developed by the Office of the Superintendent of Public Instruction, Washington State. Used with permission.

Student Reading and Worksheet

Trade-Offs of Trade

Every economic decision involves trade-offs. There are costs and benefits in every choice that is made. The process is made more difficult because there is seldom agreement on any position.

As an example, let's look at a very real situation. Japan can produce steel more cheaply and more efficiently than can the United States. This is due in part to the very modern steel plants that were built in Japan after the Second World War. By comparison, many of the American steel plants are old and somewhat out-dated. The United States could begin buying most of their steel from Japan or they could continue to produce steel themselves

CHOICE: Buy Japanese Steel	
Costs	Benefits
American workers temporarily out of work.	Cheaper steel
We wouldn't have our own steel plants in time of war.	Possibility of producing other things with resources.
Steel plants are a sign of an "industrialized" nation, and we wouldn't have as many.	We would be able to use resources more efficiently, allowing the theory of comparative advantage to work.
Volume of imports might increase greatly.	Products made from steel will cost less.

CHOICE: Make Steel in America	
Costs	Benefits
More expensive steel.	Workers continue in their jobs.
Forego the possibility of having workers do other things.	We would have our own steel plants in time of war.
Less efficient use of resources.	Steel plants give us prestige as an "industrialized" nation.
Products made from steel will cost less.	We would not have to buy imported steel so our import volume would not increase greatly.

What decision would you make? _____

Why?

You realize that the opportunity costs of one decision is the best alternative you have to give up.

Let's look at another situation

Over the years the Japanese have developed a highly skilled industrial complex that can produce excellent television sets at a moderate price. People in the United States are buying more imported television sets and fewer sets are made in the United States.

Fill out the following chart:

CHOICE: Add protective tariffs to the price of Japanese television sets		CHOICE: Allow free price competition	
Costs	Benefits	Costs	Benefits

What decision would you make? _____

Why?

TRADITIONAL, MARKET, AND COMMAND ECONOMIC SYSTEMS

Introduction: An economic system is a complex of institutional relationships that determine what goods and services will be produced, how they will will be produced, how much will be produced, and who will consume them. Investigating these relationships provides students with useful knowledge of different economic systems as well as the social and political development of different cultures.

Time required: Approximately five class periods.

Concepts: Types of economic systems: allocation mechanisms.

Instructional Objectives: Students will:

1. Collect and record data about the three types of economic systems.
2. Analyze the data and make inferences about the economic goals of particular cultures.
3. Distinguish between economies in terms of the relative importance of different allocation mechanisms.

Materials Required:

1. One copy each of handouts 1-6 for every student.

Procedure:

1. Distribute handouts 1 and 2. Ask students to read the selections in Handout 2 and then to fill out the three boxes in Handout 1 that appear under the heading "What is the main economic problem?"
2. Distribute Handout 3. Ask students to read it and then fill out the top box in column 2 of Handout 1.
3. Distribute Handout 4. Ask students to read it and then fill out the middle box in column 2 of Handout 1.

NOTE: After students read Handout 4, but before they complete Handout 1, you may want to point out the role that prices play in a market economy. If the price of a good or service tends to rise during a noninflationary period (or faster than the average of all prices in a period of inflation) the usual result will be to reduce the demand for that good or service and to increase the amount that is produced or offered for sale. If a price tends to fall in either absolute or relative terms, the opposite should happen: more of the commodity or service will be bought and less produced or offered for sale. In short, the market uses prices as key signals--or information--with which to help make economic decisions and to bring demand and supply into balance. That is why the market system is frequently called a price system.

The point being emphasized is referring to the part of the reading titled "A Model: By Bread and Cheese Alone," and requesting the students to assume that people in this imaginary economy want more cheese and less bread. Then ask:

a. What will happen to the price of good dairy land? To the wages of bakers?
b. Why would the changes the students describe take place?

4. Distribute Handout 5 and have students fill out the bottom box in Column 2 of Handout 1.

5. Have students review all the previous readings and then fill out the three boxes in Column 3 of Handout 1.

6. Distribute Handout 6. Have students complete the exercises given there.

7. Have students write an essay on the following statement: "No economy is fully a traditional, command, or market economy. Each has traces of all three systems."

Source of Activity: Adapted from Lesson Three, Strategies for Teaching Economics, Joint Council on Economic Education, James B. O'Neill, Chairperson. Used with permission.

HANDOUT 2

TYPES OF ECONOMIC SYSTEMS

Type of Economic System	What is the main economic problem? (1)	How does this type of economy decide WHAT? HOW? and for WHOM? (2)	What goals/values are implied as being important in this type of economic system? (3)
TRADITIONAL			
MARKET			
COMMAND			

HANDOUT 2: THE ECONOMIC PROBLEM

. . .(Much) economics grows out of one simple but powerful fact: There is never enough of everything to go around. For this reason, the study of economics focuses upon the concepts of scarcity and choice. Every society must find a way to divide what it has among what it needs. This generalization applies to such varied goods and services as food, shelter, transportation, and medical care.

The world's poorest societies face scarcity in its most severe form. Anyone living in an underdeveloped country where a typical person's income may average less than $100 a year knows that he cannot have everything he wants. The same point applies, however, to the governments and people of rich societies, such as . . . the United States. The United States may have to choose between trips to the moon and a clean environment. A rich family in the United States may have to choose between an expensive automobile and a vacation in Europe . . .

Economies Along Spectrums

Throughout history, people have developed many ways of organizing a society to decide what, how, and for whom to produce goods and services. Different values, backgrounds, and geography have produced a wide variety of economies. Out of this variety, however, three general types or categories of economic systems can be identified--traditional, command, and market.

The oldest of these systems is the traditional economy . . . Such systems answer the what, how, and for whom questions largely according to what was done in the past. They stress the old ways, not new ways or progress. People in these societies would be puzzled by the emphasis which (many modern) economies . . . place on constant change and improvement.

A second group, nearly as ancient as the first, includes the command economies. Rulers run these economies from above. The commands of these rulers determine the answers to the key economic questions. In the past, and in a few modern societies, the command economies have often preferred old, set ways of doing things. In that respect, they resemble traditional economies. But today many nations with command economies, such as the Soviet Union and China, stress progress.

A third group, only a few centuries old, contains the market economies . . (T)hey include some of the wealthiest economies the world has yet seen, such as the United States and Canada. Like the newer command economies, they emphasize progress and change. For the most part, the buying and selling activities of private citizens answer the what, how and for whom questions in market economies. Citizens sell their labor to one another for whatever price they can get. They then use the proceeds to buy whatever they want and can afford. Therefore, unlike a command economy, the general public--not the rulers--decide what should be produced or how to produce it.

Each of the three types of economic systems has been described very simply here. Moreover, when you try to put the world's economies into one of these three groups, you will find that no economy fits exactly into place. Although the United States serves as an example of a market economy, it has

elements of . . . traditional economic systems. For example . . . some individuals, almost without giving it another thought, go into the same line of work as their fathers or mothers. (In many instances, women do not yet receive as much pay as men for equal work.)

(T)he Soviet command economy has some elements of a market system. Some farmers on collective or state farms sell parts of what they raise for whatever they can get in the market. Likewise, the Soviet system has elements of traditional economy. The long history of the Soviet people still influences the country today. Yet, for the most part, the Soviet economy operates on commands from the central government . . .

No economy is fully a traditional, command, or market economy. Each has traces of all three systems.

Source: Adapted from Comparative Economic Systems: An Inquiry Approach, by John R. Coleman, Ted C. Soens, and Edwin Fenton, pp. 18, 24. Reprinted with permission.

HANDOUT 3: WHAT, HOW, AND FOR WHOM IN A TRADITIONAL ECONOMY

. . . Until recent years, the Eskimos produced and distributed food, clothing and shelter exactly as their ancestors had done for generations before them. When they killed a seal or a caribou, they divided the meat and hides according to the customs of the past. Each husband and wife educated their own children as they had been educated. They also provided other services, such as medical care or law enforcement, as their ancestors had done.

(The following) reading(s) concentrate . . . on the ways in which the Eskimos answered the three basic economic questions associated with the concept of scarcity: what to produce, how to produce it, and for whom to produce it . . .

What To Produce: The Seal or the Caribou

The Noahanirgmiut (no-a-ha-NEERG-me-ut) were still living on seal meat and were making no attempt to kill any of the numerous caribou that were continually migrating past . . . (they) had never hunted caribou on the ice and had not considered it possible. It would in fact be a fairly hopeless thing for them to try it; and while no doubt some of them might occasionally secure an animal, they would waste so much time that the number of pounds of meat they obtained in a week's hunt that way would be but a small fraction of the amount of seal meat they might have secured in the same time. Besides that, this is the season which the Eskimo give up to the accumulation of blubber for the coming year . . . By getting seals in the spring . . . they secure an agreeable article of diet for the coming autumn and provide themselves as well with a sort of insurance against hard luck in the fall hunt. Each family will in the spring be able to lay away from three to seven bags of oil. Such a bag consists of the whole skin of the common seal. The animal has been skinned through the mouth in such a way that the few necessary openings in the skin can be easily sewed up or tied up with a thong. This makes a bag which will hold about three hundred pounds of blubber, so that a single family's store of oil for the fall will run from nine hundred to two thousand pounds.

How To Produce It: Catching a Seal

The whole principle of successfully stalking a seal is just in realizing from the first that he is bound to see you and that your only hope is in pretending that you are also a seal. If you act and look so as to convince him from the first that you are a brother seal, he will regard you with unconcern. (Imitating) a seal well enough to deceive a seal is not difficult for, to begin with, we know from experience that his eyesight is poor. You can walk up without taking any special precautions until . . . you are within two hundred and fifty or three hundred yards. Then you have to begin to be more careful . . . You must not only crawl ahead, seal-fashion, but you must be careful to always present a side view of your body to the seal, for a man coming head-on does not look particularly like a seal . . . In this way you can crawl within five or ten yards of him if you like, and as a matter of fact I have known of expert seal hunters who under emergencies would go after a seal without any ordinary weapon and crawl so near him that they could seize him by a flipper, pull him away from his hole, and club or stab him.

For Whom to Produce It: Dividing the Seal

. . .(B)oiled pieces of seal meat had already been taken out of the pot and lay steaming on a sideboard . . . My hostess picked out for me the lower joint of a seal's foreleg, and handed it to me, along with her own copper-bladed knife; the next most desirable piece was handed to her husband, and others in turn to the rest of the family . . . (O)ne extra piece was set aside in case I should want a second helping, and the rest of the boiled meat was divided into four portions, with the explanation to me that there were four families in the village who had no fresh seal meat.

The . . . adopted daughter of the house, a (child) of seven or eight, had not begun to eat with the rest of us, for it was her task to take a small wooden platter and carry the four (small) pieces of boiled meat to the four families who had none of their own to cook . . . Every house in the village in which any cooking was done had likewise sent four portions . . .

During our meal presents of food were also brought us from other houses; each housewife apparently knew exactly what the others had put in their pots, and whoever had anything to offer that was a little bit different would send some of that to the others, so that every minute or two a small girl messenger appeared in our door with a platter of something to contribute to our meal . . .

The Influence of the Past on Decision-Making

. . . We had several excellent fish nets in our boat, and I had said to (the) Eskimo in the beginning that I thought we ought to put them out to see if we could catch any fish; but they said very definitely that there were no fish here. At that time I had had no experience with Eskimo in a country new to them. I had dealt only with Eskimo near (their) home, and my experience with them was that they knew exactly where to put nets, and knew also what places were hopeless as fishing localities. I know now that the Eskimo . . . never expect to find anything in any place where no one has found it before, so far as they know, and never having heard of any one catching fish in Smith Bay they had felt sure there would not be any . . .

The Influence of Beliefs on Decision-Making

. . .(T)he wonders of our science and the wildest tales of our own mythologies pale beside the marvels which the Eskimo suppose to be happening all around them every day at the behest of their magicians . . .

When I showed them my binoculars that made far-away things seem near and clear, they were of course interested; when I looked to the south or east and saw bands of caribou that were to them invisible, they applauded, and then (made) the suggestion, "Now that you have looked for the caribou that are here today and found them, will you not also look for the caribou that are coming tomorrow, so that we can tell where to lie in ambush for them." When they heard that my glasses could not see into the future, they were disappointed and naturally the reverse of well impressed with our powers, for they knew that their own medicine-men had charms and magic paraphernalia that enabled them to see things the morrow was to bring forth . . .

From Vihjalmur Stefansson's famous 1913 account, MY LIFE WITH THE ESKIMO; as quoted in Comparative Economic Systems: An Inquiry Approach, by John R. Coleman, Ted C. Soens, and Edwin Fenton, pp. 38-42. c. 1974 Holt, Rinehart & Winston, Pub.

HANDOUT 4: THE MARKET ECONOMY AS AN ORGANIZING TOOL

Every day thousands of people take part in making or buying such different items as groceries, ten-speed bicycles, toasters, steel rods, houses, basketballs, magazines, factories, cars, cement mixers, and clothes. Who decides which of these items should be produced? Who will get them? What will these goods cost? How many of each item should be made?

It would be simple if an individual or group could be singled out as the decision-maker. It would also be simple if some overall plan existed which set prices or production goals. However, such decision-makers and plans do not exist in a market economy . . .

THE MARKET

Because we live in a market-run society, we are apt to take for granted the puzzling--indeed, almost paradoxical--nature of the market solution to the economic problem. But assume for a moment that we could act as economic advisers to a society that had not yet decided on its mode of economic organization.

We could imagine the leaders of such a nation saying, "We have always experienced a highly tradition-bound way of life. Our men hunt and cultivate the fields and perform their tasks as they are brought up to do by the force of example and the instruction of their elders. We know, too, something of what can be done by economic command. We are prepared, if necessary, to sign an edict making it compulsory for many of our men to work on community projects for our national development. Tell us, is there any other way we can organize our society so that it will function successfully--or better yet, more successfully?

Suppose we answered, "Yes, there is another way. Organize your society along the lines of a market economy."

"Very well," say the leaders. "What do we then tell people to do? How do we assign them to their various tasks?"

"That's the very point," we should answer. In a market economy, no one is assigned to any task. In fact, the main idea of a market society is that each person is allowed to decide for himself/herself what to do."

There is consternation among the leaders, "You mean there is no assignment of some people to mining and others to cattle raising? No manner of designating some for transportation and others for weaving? You leave this to people to decide for themselves? But what happens if no one volunteers to go into the mines, or if no one offers himself/herself as railway engineer?"

"You may rest assured," we tell the leaders, "none of that will happen. In a market society, all the jobs will be filled because it will be to people's advantage to fill them."

Our respondents accept this with uncertain expressions. "Now look," one of them finally says, "let us suppose that we take your advice and allow our people to do as they please. Let's talk about something specific, like cloth production. Just how do we fix the right level of cloth output in this 'market society' of yours?"

"But you don't, " we reply.

"We don't! Then how do we know there will be enough cloth produced?" he asks triumphantly.

"Ah, but the market will see that too!"

"But what is this market that will do these wonderful things? Who runs it?"

"Oh, nobody runs the market," we answer. "It runs itself. In fact there really isn't any such thing as 'the market.' It's just a word we use to describe the way people behave."

"But I thought people behaved the way they wanted to!"

"And so they do," we say. "But never fear. They will want to behave the way you want them to behave."

"I am afraid," says the chief of the delegation, "that we are wasting our time. We thought you had in mind a serious proposal. What you suggest is inconceivable. Good day."

A MODEL: BY BREAD AND CHEESE ALONE

. . .Imagine a market economy somewhere in the world which produces and consumes only two products. The people in this economy live entirely on bread and cheese. Study the model carefully, and consider how this economy decides what to produce, how to produce it, and for whom to produce it.

First, much of the what question is answered by the fact that these people just happen to like bread and cheese, and only bread and cheese. But how much of each? Since these people live in a free market economy, they are not told which to buy. They will divide their spending between bread and cheese in whatever way appeals to their tastes. Assume that they have been spending half of their income on bread and half on cheese. Now suppose these people decide, of their own free will, that they want more cheese and less bread. What happens?

First, the bakers and the cheese makers learn of the change in taste not from a king or commissar, but from simple observation. The bakers find themselves with bread unsold at the end of the day. That is a signal to them to cut back on production. The cheesemakers, on the other hand, find that they have sold all their cheese before the end of the day. That is their signal to try to expand production.

But the chain of events has just begun. The cheesemakers cannot simply make more cheese immediately. First, they will have to get more milk, more labor, and more equipment. If any of these ingredients is in short supply, the cheesemakers may change the way in which they make cheese as well as the amount. If skilled labor is hard to come by, the cheesemakers may train more people. work their present staff overtime, cut corners in the cheesemaking process, or try to devise new machinery to do part of the work that has been done by labor. From any of these changes, a new how answer would result.

At the same time, bakers will find that they must lay off some of their skilled workers as production is cut back. These workers may be lucky enough to find jobs in the expanding cheese industry. However, their new jobs will probably neither pay as well nor be at as high a skill level as their old jobs in the bread industry. Farmers with land that is fine for raising wheat but not so good for raising dairy cattle will also feel the squeeze (at least until they can shift to another crop that is just as profitable). Their friends with good dairy land will prosper. Thus, there will be a redistribution of income as a result of the shift of tastes from bread to cheese. The for whom question is answered not by law but by impersonal market forces.

Those who gain from the shift in taste get more income with which they can buy more of the economy's bread and cheese than ever before. Those who lost from the shift in taste end up with less money to buy bread and cheese.

The real world, however, is more complicated than this imaginary economy of bread eaters and cheese eaters. In the real world, thousands of products exist. But the same basic process is still at work. In a market economy, free market forces, responding to the demand of consumers alone, make the major decisions about what goods are to be produced, who they are to be produced, and for whom they are to be produced.

Sources: "What to Produce: The Seal or the Caribou?" "A Model: By Bread and Cheese Alone" are from Comparative Economic Systems: An Inquiry Approach, by John R. Coleman, Ted C. Soens, and Edwin Fenton, pp 38-45. 1974, Holt, Reinhart and Winston Publishers. "The Market" is from The Making of Economic Society, by Robert Heilbroner, pp. 18-19. Prentice-Hall, Inc., New Jersey. Reprinted with permission.

HANDOUT 5: THE CORE OF THE COMMAND ECONOMY

. . .In a market economy, productive resources such as steel, timber, skilled labor and computers, would go to whoever bids highest for them. In the Soviet Union, government planners decide where such resources are to go. They say, "Here are our most important goals, and here is the way we will use our available resources to achieve these goals."

When considering the distribution of key resources, the planners face an important question: How should they divide production between capital goods and consumer goods? If they chose to, the planners could raise today's standards of living quickly. They could allocate resources to the production of consumer goods which the people desire. But they know that steel used for automobiles, washing machines, and refrigerators cannot also be used for railroad cars, bridges, and more steel mills. And if the stock of capital goods does not increase, the nation will not be able to make more consumer goods in the future. The problem, then, is: Find a workable balance between giving the people what they want in the short run, while providing for the long-term expansion of the nation's productive facilities . . .

All of the separate pieces in the Soviet Union's economic jigsaw puzzle somehow have to be fitted together. This is the task of the Gosplan, the state economic planning agency of the Soviet Union. This committee of economic planners receives its general directions from the central committee of the Communist Party. The party frames the five-year plans for the society.

In translating the general commands of the party into many closely related, specific targets, the Gosplan has help from subordinate commissions that govern different industries and regions. The planning agency also uses statistics and computers to help fit the pieces of the economic jigsaw puzzle together . . .

Even with the various types of assistance the Gosplan receives, the task of the economic planners remains complex. The planners must make most of the economic decisions that the free market makes in the United States. Outsiders know many of the mistakes that Soviet planners have made. Too many shortages and too many failures in achieving goals make these mistakes difficult to conceal . . .

The Gosplan takes its orders from the Communist Party. The party is an elite group and is deliberately kept small. In fact, only about six percent of the adults in the Soviet Union today belong to the party. But once they become members, each plays a part, however minor, in setting the goals for the nation. The members of the Gosplan are the key technicians whose skills help determine whether or not the nation's goals are achieved. But the goals themselves--and the final control of the economy--still remain firmly in the hands of the Communist Party . . .

Source: Adapted from Comparative Economic Systems: An Inquiry Approach, by John R. Coleman, Ted C. Soens, And Edwin Fenton, pp. 156-59. Rinehart and Winston, Publishers. Reprinted with permission.

HANDOUT 6: EVALUATION EXERCISE

Below are statements describing various economic actions. In the space provided label or classify each statement according to whether you think it is typical of a traditional economy (T), a command economy (C), or a market economy (M).

_____1. "On the farms, the working day lasts from before sunrise until dusk or dark. As they have done for centuries, women follow the reapers and binders on foot to gather the gleanings from the field . . ."

_____2. "The problem of finding skilled workers was immense. There were simply not enough trained men available. His competitors were fighting for their share of the labor supply. (He) decided to introduce a five-dollar-a-day minimum wage. The new minimum more than doubled the existing wage . . ."

_____3. "The practice of giving certain industries (first call on scarce materials) has brought more rapid over-all economic growth than otherwise might have been possible."

_____4. "The proclamation of the (head of state) declared that no banking operations should be carried on throughout the country until further notice."

_____5. "The (people being studied) were still living on seal meat and were making no attempt to kill any of the numerous caribou that were continually migrating past. I thought at first that there might be some taboo preventing them from hunting caribou on ice, but this they told me was not so. It was simply that they had never hunted caribou on the ice and had not considered it possible . . ."

_____6. "Holding prices in check was difficult. A great burden fell on the Office of Price Administration, created to keep the lid on prices by setting ceilings on a large list of commodities which were much in demand."

ANSWER SHEET

Handout 6: Evaluation Exercise

1. T (traditional economy)

2. C (command economy)

3. C (command economy)

4. C (command economy)

5. T (traditional economy)

6. M (market economy)